

**Development of Health Systems  
in the Context of Enhancing  
Economic Growth towards Achieving  
the Millennium Development Goals  
in Asia and the Pacific**



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# **Development of Health Systems in the Context of Enhancing Economic Growth towards Achieving the Millennium Development Goals in Asia and the Pacific**



**Economic and Social Commission for Asia and the Pacific**

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# Foreword

In recent years, the Asian and Pacific region has experienced both high rates of economic growth and improvements in health care. In general, income levels have increased and life expectancy has risen considerably, while infant and child mortality levels have fallen. Communications and other infrastructure networks are rapidly developing, with the potential to improve access to health care.

Still, Asia and the Pacific remains a region of dichotomies. Nearly two thirds of the world's poor live in the region. HIV/AIDS, avian influenza and other diseases continue to pose serious threats, especially to vulnerable groups. A number of countries have even witnessed a decrease in life expectancy and a rise in infant mortality. While some enjoy access to affordable and good quality health care, such care remains a luxury for many others. High rates of out-of-pocket medical expenditures hinder numerous people from receiving basic treatment, and push many into poverty.

The attainment of the health-related Millennium Development Goals requires countries to address issues of efficiency, quality and equity of health care. It also requires the recognition of mutually reinforcing relationships between health and economic growth. Improved health increases access to education and training, and enhances the productivity of workers. On the other hand, higher income levels have a positive influence on health outcomes. With that, investments in health by Governments and the private sector are the key. At the same time, addressing other critical factors, including attitudes against vulnerable groups, such as women and persons with disabilities, must be accompanied by financial commitments.

The current health condition of most countries in the region necessitates the strengthening of systems to deliver comprehensive health care at the national level. Such comprehensive health care would significantly contribute to the attainment of the Millennium Development Goals. The changing lifestyles and demands of ageing societies, as well as new diseases, also require the development of sustainable universal health-care coverage. Furthermore, a broad array of issues affecting health, including access to affordable drugs and trade in medical services, are calling for regional action.

This study, entitled *Development of Health Systems in the Context of Enhancing Economic Growth towards Achieving the Millennium Development Goals in Asia and the Pacific*, was prepared for the sixty-third session of the Commission (Almaty, 17-23 May 2007). This study considers and analyses the issues described above and makes recommendations for action at both the national and regional levels.

The purpose of this study is not only to provide information, but most importantly to stimulate action. I sincerely hope this publication will be useful for all policymakers, as well as representatives of non-governmental organizations and the private sector, in our common efforts towards a comprehensive strengthening of health systems for the achievement of the Millennium Development Goals and sustained economic growth in the region.



Kim Hak-Su

Executive Secretary



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# Abbreviations

ASEAN	Association of Southeast Asian Nations
CMH	Commission on Macroeconomics and Health (WHO)
DHS	demographic and health surveys
DOTS	directly observed treatment
GATS	General Agreement on Trade in Services (WTO)
GMS	Greater Mekong Subregion
IMR	infant mortality rate
ICST	information, communication and space technology
MMR	maternal mortality ratio
MDGs	Millennium Development Goals
ODA	official development assistance
PPP	purchasing power parity
R and D	research and development
SARS	severe acute respiratory syndrome
TRIPS	Trade-Related Aspect of Intellectual Property Rights (WTO)
U5MR	under-5 mortality rate



## EXECUTIVE SUMMARY

A strong linkage between economic growth and health has emerged in several studies. Economic growth increases the resources available to health systems and the social infrastructure that supports them. Higher incomes allow people to improve the quality of their diet and environment and to afford health care and education. Conversely, good health significantly increases labour productivity and can improve the supply of labour. It also enhances education and can lead to higher household incomes by reducing expenditure on health care. Improved health, therefore, is not just a consequence of economic growth but a crucial tool for tackling poverty.

The Asia-Pacific region has undergone dramatic economic and social transformation in recent decades. The average annual rate of economic growth of 7.5 per cent among developing countries in the region between 1988 and 2005 was twice the world average. Health has also improved. To take one measure, life expectancy in most countries has risen significantly, in China alone by 35 years in little more than four decades. As a region, Asia and the Pacific is making good progress towards achieving most of the MDGs by 2015. The progress achieved on halving poverty and hunger and achieving universal primary education has been faster than is required to meet MDG targets.

However, regional averages mask huge disparities between and within countries in levels of growth, development and health. Moreover, the Asia-Pacific region faces daunting absolute levels of poverty, with a major share of the world's malnourished children as well as the number of people living on less than a dollar a day, those without access to clean water or sanitation and those suffering from tuberculosis.

In spite of progress in several areas, under-5 mortality is still high in many countries of the region. Half the world's maternal deaths still occur in the ESCAP region, with South Asia having the highest numbers in absolute and relative terms. Moreover, the region as a whole is off-track in relation to reversing the spread of HIV/AIDS, with prevalence still on the rise. Although the incidence of malaria appears to have fallen in the region as a whole, the number of cases is increasing in some countries. South-East Asia has the highest levels of drug- and insecticide-resistance in the world.

Some of the obstacles to improving health lie within the health sector. These include low levels of spending on health and a weak infrastructure of clinics, emergency obstetric and antenatal care, crucial where more than 60 per cent of births occur at home in countries comprising half of the region's total population. The region is short of health workers, and in some countries the density of health professionals is lower than in sub-Saharan Africa. Three of the six countries in the world where polio

**Health and economic growth reinforce one another**

**Good regional progress towards achieving the MDGs masks huge disparities between and within countries**

**Poverty, hunger, education and gender are also key determinants of health**

is still endemic are in the ESCAP region, pointing to the broader issue of lack of access to essential drugs and vaccines in many parts of the region.

Other social factors outside the immediate purview of the health sector also have a profound influence on health. Poverty is a key driver of child and maternal mortality and access to appropriate medical treatment. Hunger is another critical determinant of health. Growth is retarded in between one quarter and one half of pregnancies in South and South-West Asia and low birth weight babies face problems in their physical and mental development. Education and health literacy are essential for people to make informed choices about health risks and prevent disease.

Attitudes towards gender are a major factor in the lack of progress on many MDGs, particularly in South and South-West Asia. Discrimination against women starts before birth, for example with sex-selective abortions, and then continues through childhood and adolescence, influencing access to food, education and medical care. Lack of access to clean water and sanitation are key factors in the spread of infectious diseases, particularly among children. Half of the world's population without improved sanitation lives in China and India, while Pacific island countries and territories have some of the lowest rates of access to safe drinking water in the world.

**Demographic and epidemiological changes present major new health challenges**

The region also faces new health challenges. Increased life expectancy has led to rapid ageing of the region's population, particularly in East and North-East Asia, and this trend looks set to accelerate. This has profound implications for planners and policymakers as the disease burden increases the demand for costly health services. Similarly, lifestyle changes accompanying economic growth add increasing levels of chronic disease to the existing burden of communicable diseases. Meanwhile newly emerging diseases, such as SARS and avian influenza, threaten devastating setbacks.

**A comprehensive health systems approach is a key to achieving the health-related MDGs**

The Asian and Pacific countries coping best with such challenges and enjoying the best health status are those with the lowest disparity in access to health care between subregions and social classes. That experience underlines the need to give priority to strengthening comprehensive health care and the capacity of country health systems to deliver it. Interventions targeting specific diseases may achieve quicker results but such efforts may result in duplication of activities and may not be sustainable in the long term. A comprehensive health systems approach can help countries in the region to meet most of the goals and targets, and are the key to delivering sustainable health care beyond the MDGs that can deal with the changing demands of ageing societies and new diseases. This would entail strengthening health systems by upgrading infrastructure and human resources in order to provide quality health services in an equitable manner. Actions within the health sector alone may not be enough to ensure good health outcomes. Factors such as poverty, gender inequality and lack of education need to be effectively addressed in order to complement actions within health systems.

**Universal health-care coverage is the key to sustainable improvement in health outcomes**

Progress towards universal health care in the region varies considerably, whether it is through a tax-funded system or social health insurance schemes. Significantly, the ESCAP region has examples of success in achieving universal health-care coverage among low- and middle-income countries, as well as among developed countries.

Some countries in the region, such as Japan and the Republic of Korea, have achieved universal health-care coverage through mandatory social insurance, helped by buoyant economies and substantial government subsidies. Some other countries in the region, such as Sri Lanka, have shown that universal health-care coverage can be achieved through a tax-funded system by a relatively poor country with a per capita GDP of less than \$500, expanding the network of small hospitals to ensure extensive coverage of the poorer rural population. Mongolia, a mainly rural and similarly low-income country, has also come close to universal coverage through political commitment.

Most countries in Asia and the Pacific, however, need to address a shortfall in the levels of funding of their health-care systems in order to move towards universal coverage and to achieve the health-related MDGs. The Commission on Macroeconomics and Health estimates that over \$30 per capita would need to be spent annually on health, a figure that implies significant challenges. There are other challenges, such as allocating resources more efficiently and keeping such diseases as HIV/AIDS in check, but experiences from within the Asia-Pacific region and United Nations Millennium Project estimates suggest that the health-related MDGs could be achieved with spending closer to \$20 per capita. For the least developed countries of the ESCAP region, this would imply investment needs of a modest \$3.6 billion annually, or \$32.4 billion from 2007 to 2015, in addition to the funding that can be generated domestically.

Some countries need to devote more effort to building up health care. In some cases, the level of investment needed is well beyond the resources available domestically and countries need both to use existing funds more efficiently and to explore new ways to mobilize funding, at home and abroad, possibly by creating new financial mechanisms to expedite funding.

The Asia-Pacific region also needs to act on a broad array of other issues that affect health, particularly access to drugs and the trade in health services. The ESCAP region has 60 per cent of the world's people who lack access to essential drugs. Developed countries account for the overwhelming proportion of production as well as consumption of the world's output of medicines. There has been neglect of research and development into, and production of, drugs to treat diseases common in the developing world, which affects the availability and affordability of drugs in developing countries.

A number of Asian and Pacific countries, including China and India, have emerged as significant producers of generic drugs. The implementation of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) by many countries in the region would have an impact on the development and supply of generic drugs both within the region and beyond. In addition, the bilateral free trade agreements that have proliferated in recent years often surpass the TRIPS Agreement. Policies to promote affordable access to medicines must balance the need to encourage innovation and research into new drugs relevant to the region with the need for safeguards to ensure that essential drugs are affordable to all segments of the population.

**Health investment  
needs are challenging**

**International trade  
rules and intellectual  
property rights shape  
access to drugs and  
prices**

In view of the implications of the burgeoning trade in medical services and skills, Asian and Pacific countries need to consider possible safeguards for their own public health systems. India, Singapore and Thailand are among several ESCAP member countries that are generating substantial income from the fast-growing medical tourism industry. Similarly, the migration of health workers from the Asia-Pacific region to high-income countries generates large remittances and offers migrants opportunities to develop their skills. However, this phenomenon could lead to a potentially damaging shortage of skills in the countries of origin.

**More regional  
cooperation is needed  
across the board**

Greater regional cooperation presents a logical and necessary approach to the achievement of the health-related MDGs and the other key challenges. Asian and Pacific countries need to harness their resources, possibly through new regional investment mechanisms, to mobilize the large volumes of capital needed to develop the health and other sectors. Similarly, a regional mechanism for health systems and policy research would help generate reliable evidence for policymaking and coordinate responses to emerging threats from communicable diseases. Regional cooperation would also contribute to optimizing the benefits of trade in health while protecting public health interests.

In sum, each country in the ESCAP region faces specific challenges in its quest to achieve the health-related MDGs. These challenges can only be met by adopting a comprehensive health systems approach to deliver universal coverage of a minimum package of health services and by addressing the determinants of health that lie beyond the direct purview of the health sector. Given the interconnected nature of the MDGs, it is essential to develop and implement strategies and policies recognizing the significance of the social determinants of health and the multiplicity of sectors affecting health.

## CHAPTER I INTRODUCTION

**A**sia and the Pacific is a dynamic region, leading the world in rapid economic development and poverty reduction. Its dramatic economic transformation has helped the region as a whole to make rapid progress towards achieving the Millennium Development Goals (MDGs). However, there are still wide disparities between and within countries in the region and the variable progress towards the health-related MDGs remains a key area of concern.

Many countries in the Asian and Pacific region are progressing slowly, and performance on some key targets, including water and sanitation, is less than satisfactory. Absolute numbers show the scale of human poverty in the region to be daunting. The region has a major share of the world's population suffering from many attributes of deprivation. These include the number of people living in rural areas without access to sanitation, underweight children, people suffering from malnourishment, people living on less than a dollar a day and the number of cases of tuberculosis.

The effects on health of demographic and epidemiological trends, coupled with weaknesses in health systems, pose major obstacles to accelerated progress towards the health-related MDGs. The achievement of the MDGs by 2015 will depend crucially on the combined efforts of Governments and their national and international development partners. The members and associate members of ESCAP have clearly indicated their concerns on this issue by choosing "development of health systems in the context of enhancing economic growth towards achieving the Millennium Development Goals in Asia and the Pacific" as the theme topic for the sixty-third session of the Commission.

This study is structured around three key thematic areas. The first explores the relationship between economic growth and health systems development, with a particular focus on the association between health and the economy. Chapter II looks at health as a key component of human capital, which in turn is an important determinant of economic growth, and draws upon examples from countries in the Asia-Pacific region where investments in health as well as education have served as foundation stones for comprehensive broad-based development. It identifies key issues, priorities and challenges and examines policies to expand the range of opportunities provided by the nexus between health and economic growth.

The second thematic area is covered in chapters III to VI, which focus on the status of health systems in the region and the challenges, opportunities and policy options in connection with achieving the health targets of the MDGs and beyond.

Chapter III reviews the progress made to date towards achieving the health-related MDGs in the ESCAP region. It looks at the obstacles and challenges to health systems, not only with regard to fulfilling MDG objectives on time but also from current and changing trends in health. It also considers options for health system changes aimed at improving the health status of populations and accelerating the progress of countries in the region towards achieving the health-related MDGs on time.

Chapter IV builds on the preceding chapter and discusses universal health-care coverage as the most sustainable way to achieve the health targets of the MDGs and beyond. The Asia-Pacific region is exceptionally diverse in the levels of economic development and the state of national health systems. Accordingly, there is no one-size-fits-all answer for all countries, but the region has several success stories regarding universal health-care coverage that can provide valuable lessons for the future.

Chapter V looks at the cost concerns of strengthening health systems and implementing universal health-care coverage. This is a crucial and urgent issue for several countries in the region. High levels of out-of-pocket expenditure, especially in poorer countries, and limited private-sector capacity, means that government budgets must lead investment in the provision of universal coverage of quality basic health care. Despite the efforts of Governments, there will still be a shortfall in meeting total investment requirements. Private sector and external funding remain necessary financial complements. Health systems reforms, including sustainable financing, for effective delivery of health services will only be successful if relevant sectors outside of health are managed properly.

Chapter VI looks at the impact and contributions of other sectors on health. These sectors relate mainly to trade and the economy and include trade in pharmaceuticals and health services. They are not regulated or influenced by policies within the purview of the health sector, but the nature and thrust of policies and regulatory frameworks in these sectors can determine the performance of health systems.

The third and final thematic area covers policy options and regulatory frameworks required at the national and regional levels. Although these issues are examined throughout the theme study, they are brought together in chapter VII, which looks at policy options at the national and regional levels. It identifies specific areas where cooperation and harmonization, including new and innovative regional mechanisms, can and must work to strengthen health systems, finance investment gaps and manage sectors outside of health.

The theme study therefore calls for a comprehensive strengthening of health systems in Asia and the Pacific in order to achieve the MDGs and sustained economic growth in the region. Building up and strengthening health systems requires that improvements in the health and other economic and social sectors be made by Governments, non-governmental and voluntary organizations, local authorities, industry and the media. A comprehensive health systems approach also requires

urgent investment, public financial management, human resources planning, roads and infrastructure, and the prioritization of health in all national policies to ensure universal access to broad-based health services and affordable access to quality essential drugs for all sections of the population.





## CHAPTER II

# THE NEXUS BETWEEN HEALTH AND ECONOMIC GROWTH

### INTRODUCTION

**H**ealth is a key component of human capital, which in turn is an important determinant of economic growth. Until recently, most studies defined human capital narrowly as educational achievement. However, since the Commission on Macroeconomics and Health (CMH) published its report,<sup>1</sup> which was instrumental in making an economic argument for investing in health, many studies on the relationship between health and economic growth, both empirical and analytical, find evidence that health has a strong, positive impact on economic growth. Several others find that economic growth improves health.

Improved health can enhance workers' productivity by increasing both physical and mental capacities. A higher labour supply, improved skills that result from increased access to education and training, and capital formation, through higher savings, are ways in which health can contribute to economic growth. Higher income, both individual and national, resulting from economic growth also influences health outcomes, as higher income can increase health consumption (demand for health services) and investment (supply of health services).

Sri Lanka, Viet Nam and the Indian state of Kerala have shown that dramatic improvements in health can occur even in the absence of high growth. In these settings, allocation of scarce resources and public expenditures on health have played important roles in health outcomes. This evidence shows not only the two-way causal relationship between health and growth but also the role of other factors as determinants of health.

This chapter critically examines the nexus between health and economic growth in Asia and the Pacific. It identifies issues, priorities and challenges and considers policies for exploiting the relationship between health and growth for economic development and social welfare. A theoretical framework for the relationship between health and growth is provided in section A. Section B analyses health and economic trends in the Asian and Pacific region. Section C investigates the relationship between health and growth. Section D identifies issues, priorities and challenges. Section E provides conclusions and recommendations.

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<sup>1</sup> WHO, *Macroeconomics and Health: Investing in Health for Economic Development* (Geneva, WHO, 2001).

## A. A THEORETICAL FRAMEWORK

Historically, human capital has been defined in narrow terms as educational accomplishment and little attention has been paid to the relationship between health and growth. More recently, however, the importance of health to human capital has become widely acknowledged. Health and growth are now seen to interact in ways that are described below.

### 1. IMPACT OF HEALTH ON GROWTH

#### a. Productivity

Good health enhances workers' productivity by increasing their physical capacities, such as strength and endurance, as well as their mental capacities, such as cognitive functioning and reasoning ability. Empirical evidence clearly shows that health has a major impact on the raising of labour productivity. Some studies estimate that a single percentage point increase in the adult survival rate increases labour productivity by as much as 2.8 per cent.<sup>2</sup>

#### b. Labour supply

Good health can improve the effective supply of labour by minimizing absenteeism due to ill-health, inducing those whose health improves to (re-)enter the labour force and enabling existing workers to remain in active employment for years, without needing to take early retirement due to illness. A decline in fertility can also contribute to an increase in the labour supply, as women who face lower demand for childcare can devote more time to work. However, it should be added that increased income from better health and productivity can lead individuals to want to work less and results in a reduced supply of labour.

#### c. Education

Improved health in children has a direct impact on school attendance and student performance by improving cognitive ability and the capacity to reason. Children with poor health have significantly lower educational attainment and as adults have poorer health and lower social status.<sup>3</sup> Furthermore, children with poor health receive fewer years of schooling. Those with the most severe health problems obtain about 20 per cent fewer years of schooling than their healthier counterparts. Moreover, reduced schooling has a direct impact on incomes: one study shows that it lowers hourly earnings by about 17 per cent directly and indirectly.<sup>4</sup>

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<sup>2</sup> For example, D. Bloom, D. Canning and J. Sevilla, "Health worker productivity and economic growth", *School of Public Policy and Management Working Paper* (Carnegie Mellon University, Pennsylvania, 2002), available at: <<http://equilibrium.heinz.CMU.edu/Mgaynor/AHEC/Bloom%20paper2.pdf>>.

<sup>3</sup> A. Case, A. Fertig and C. Paxson, "The lasting impact of childhood health and circumstance", *Journal of Health Economics*, 2005, vol. 24, No. 3, pp. 433-455.

<sup>4</sup> One such study is T.J. Perri, "Health status and schooling decision of young men", *Economics of Education Review*, 1984, vol. 3, No. 3, pp. 207-213.

**Good health raises the labour supply, education and productivity**

#### **d. Capital formation**

Reductions in both visits to the doctor and the use of medicines inevitably have a positive impact on the budget of an individual as well as a Government. As such, improved health in an individual or a nation can lead to savings in health expenditure. Although individual preferences can bring about an increase in consumption, a part of such savings can be expected to be used for investment. Higher incomes resulting from improved health can also lead to higher capital formation.

## **2. IMPACT OF GROWTH ON HEALTH**

Higher economic growth can also result in better health outcomes in five ways.

#### **a. Investment in health systems**

The lack of financial investment in health is one of the critical factors behind underdeveloped health systems and causing ill health. Access to universal health care prevails in only a few countries in the region and even in those countries where such systems exist, lack of resources can affect the quality of services. Sustained high economic growth makes it possible to increase public and private investment in the health sector. High economic growth also paves the way for private-sector investment in countries that previously discouraged it because health was generally perceived as a public good. This can occur when structural reforms, including liberalization of the health sector, lead to higher growth and to changes in perceptions of the role of the public sector.

#### **b. Access to health services**

Demand for health services critically depends on the ability of individuals to access such services. Financial costs are also a major barrier to access. Increased income and wealth as a result of enhanced economic growth allows individuals to gain better access to health services. Sustained economic growth enhances a Government's ability to raise more revenue and enables the private sector to generate more profits, which in turn induces the emergence of health insurance markets, prompting greater demand for good quality health care.

#### **c. Education**

Most critical diseases can be prevented by educating children, mothers and the general public. A better educated person is more likely to weigh the costs and benefits of actions which have health effects than a person with lesser education. Smoking, alcohol and substance abuse, and other high risk behaviour are some of the actions that are closely associated with a lack of education. Adult and childhood education can have a significant impact on such behaviour. Educated mothers are more likely to send their children to school, keep them healthy and teach them healthy habits. Countries with adequate resources are more likely to adopt educational programmes to address these issues than those without.

*Economic growth allows greater public spending on health, rising incomes make health systems more accessible*

**Changing lifestyles brought by economic prosperity present new and costly challenges to public health**

**d. Lifestyle changes**

Economic growth can induce lifestyle changes that have both positive and negative health implications. High income levels enable people to live in better and healthier environs, change consumption habits and consume quality food, visit the doctor more frequently for regular check-ups, engage in regular physical activity and seek to achieve a better work-leisure balance. People in Okinawa, Japan, live healthier and longer lives than others because of healthier, balanced diets. If Americans lived more like Okinawans, they would have to close down 80 per cent of the coronary units and one third of the cancer wards in the United States.<sup>5</sup>

Non-communicable diseases, including cardiovascular diseases, are responsible for two thirds of deaths in the ESCAP region. As a result, people in the region are suffering serious social and economic consequences. Dietary habits and lack of physical activity are among the preventable risk factors linked to non-communicable diseases. Increased consumption of food with saturated fats, longer working hours and living in congested cities are common among all income groups, both in developing and developed countries.

**e. Technical advances**

Technical progress was a key factor in improved health during the last century, even when income growth was slow or stagnant. Of the mortality decline in 115 low- and middle-income countries during the period from 1960 to 1990, about 50 per cent is attributable to technical advances. This can be directly linked to economic development.<sup>6</sup> Technical progress can comprise advances in knowledge and institutional and managerial capacities in the health sector. Health is also affected by technical progress in other sectors, such as agriculture, in which higher productivity can lead to an intake of more nutritional food. Technical advances depend to a large extent on a country's ability to spend on research and development (R and D) and the availability of incentive structures, such as patents and subsidies for research. At low levels of development, however, technical advances can result in a deterioration of the quality of the environment, with negative health implications; this has been experienced in many countries during their development process.

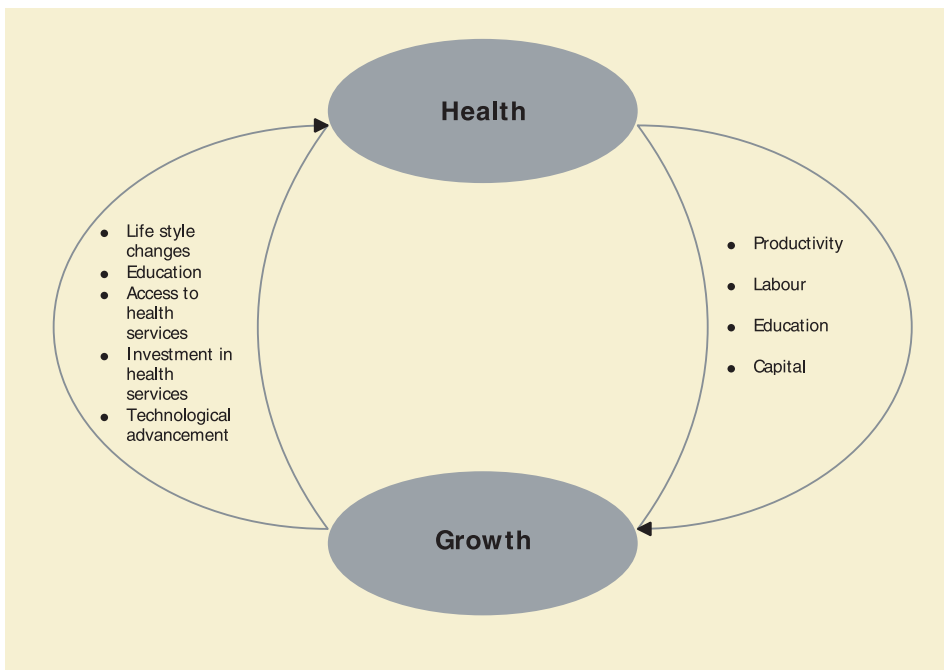
The two-way interplay between health and growth through these channels is illustrated in figure II.1.

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<sup>5</sup> B.J. Willcox, C. Willcox and M. Suzuwei, "The Okinawa Programme" (2002), available at: <[http://okinawaprogramme.com/okinawa\\_programme.html](http://okinawaprogramme.com/okinawa_programme.html)>.

<sup>6</sup> J. Wang and others, "Measuring Country Performance on Health: selected indicators for 115 countries" (Washington D.C., World Bank, 1999).

**Figure II.1. Interplay between health and growth**



## **B. TRENDS IN HEALTH AND ECONOMIC GROWTH**

Health and economic outcomes in the Asia-Pacific region have not only improved significantly in recent decades but have also proved to be mutually reinforcing. A weak and dependent regional economy has become a powerful driver of world economic growth. At the same time, the region has produced some of the healthiest nations in the world. However, economic progress does not automatically translate into improved public health. Moreover, the overall regional picture masks significant variations at the country and subregional levels.

### **1. ECONOMIC TRENDS**

One of the region's most conspicuous changes in recent decades has been its economic transformation. Australia, Japan and New Zealand led the way as the region's advanced economies. Later, the Republic of Korea, Singapore, Hong Kong and Taiwan Province of China developed their economies for export-led growth, becoming the "Asian tigers" and ultimately creating the "Asian miracle" of the 1980s. In the Republic of Korea, per capita income rose by a factor of 60, from \$275 in 1970 to \$16,421 by 2005. In the same period, per capita income in Taiwan Province of China rose by a factor of 35, to \$15,120, in Singapore by a factor of 30, to \$26,835, and in Hong Kong, China, by a factor of 26, to \$23,980.

The subsequent opening up of the economies of China and India, which account for nearly one third of the world's population, changed the dynamics of the regional and world economies. During the period from 1988 to 2005, the average rate of economic growth of developing countries in Asia, at 7.5 per cent per annum, was more than twice that of the rest of the world. Sustained high growth enabled 11 countries to achieve a per capita income level exceeding \$5,000 by 2005, and seven of them crossed the \$10,000 per capita income mark.

Despite these achievements, one third of Asian and Pacific countries have an annual per capita income of less than \$1,000, and, of these, nearly half have an annual per capita income of less than \$500. Nearly two thirds of the world's poor live in Asia and the Pacific, the majority of whom are in South Asia, the subregion with the weakest health outcomes.

## **2. HEALTH TRENDS**

Key aggregate indicators of health in the Asia-Pacific region have also shown dramatic improvement in recent decades

### **a. Life expectancy**

**People in the ESCAP region are living nearly 30 years longer than they were 45 years ago**

Life expectancy in the ESCAP region rose from 40.19 years in 1960 to 68.17 years by 2004, an increase of 70 per cent.<sup>7</sup> However, the important contribution of economic growth has been offset at certain times and in certain parts of the region by conflicts and other disruptions, causing declines in life expectancy in affected areas.

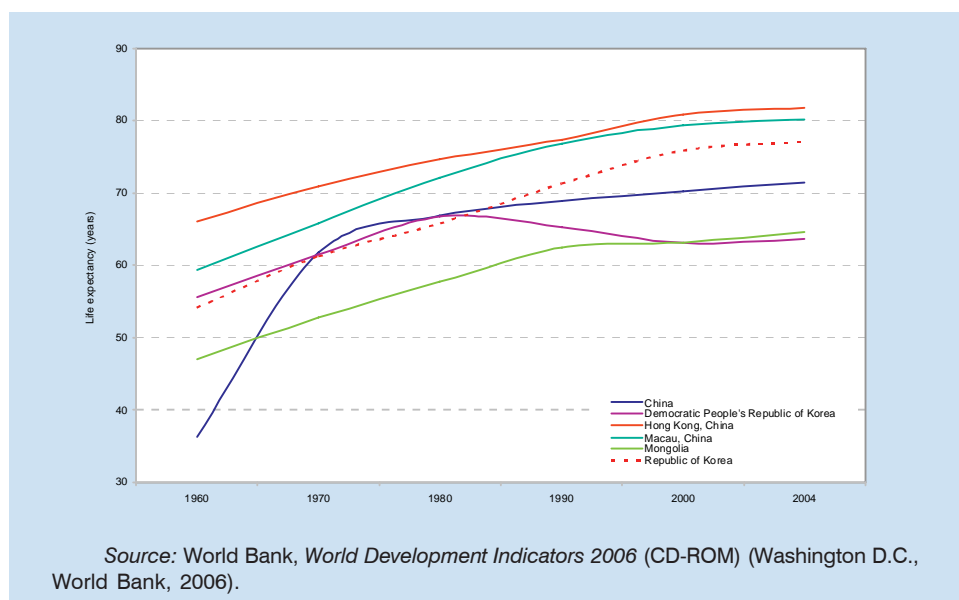
East and North-East Asia recorded the highest gain in life expectancy since 1960<sup>8</sup> mainly due to a sharp gain in China (figure II.2). In 1960, average life expectancy in China was, at 36.32 years, one of the lowest at that time, reflecting the impact of the failed "Great Leap Forward" policy initiative, which led to millions of deaths and widespread economic dislocation. In ensuing years, a policy reversal enabled China to gain 35 years in life expectancy by 2004. Hong Kong, China, and Macau, China, recorded the subregion's highest life expectancy (over 80 years). The Democratic People's Republic of Korea is a notable exception to the subregional trend, experiencing a decline in life expectancy from a high of 67.0 years in 1977 to 63.6 years in 2004 due to deteriorating socio-economic conditions. In contrast, life expectancy in the Republic of Korea rose from 54.15 years in 1960 to 77.14 years in 2004 largely as a result of economic progress.

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<sup>7</sup> Calculated using data from World Bank, *World Development Indicators 2006* CD-ROM (Washington D.C., World Bank, 2006).

<sup>8</sup> Although Japan is part of the subregion, it is not included in this classification. Among the developed countries in the Asia-Pacific region, Japan, which had surpassed both Australia and New Zealand by 1970, has the world's highest life expectancy at 81.8 years.

**Figure II.2. Life expectancy trends in East and North-East Asia**



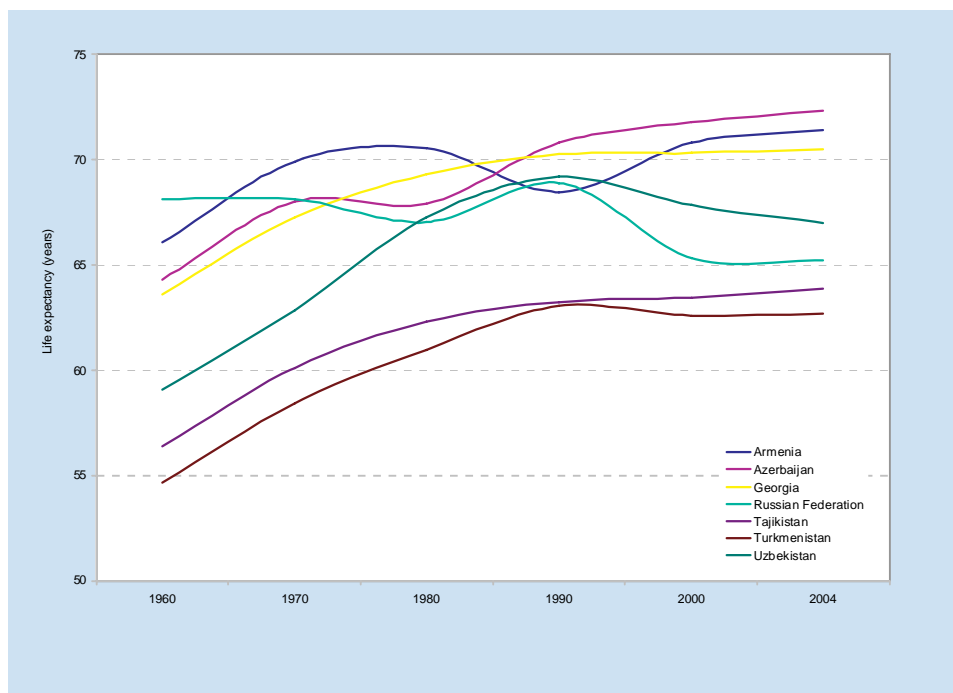
South and South-West Asia also experienced significant improvements in life expectancy, with many countries in this subregion recording a gain of 20 to 25 years. Life expectancy in Bhutan, in particular, has risen by nearly 42 per cent during the past quarter of a century. However, the subregion started from a very low base four decades ago. With the exception of the Islamic Republic of Iran and Sri Lanka, life expectancy in the countries of this subregion is still below 70 years.

South-East Asia has managed steady progress, gaining over 14 years in life expectancy since 1960. Life expectancy in Indonesia and Viet Nam increased by 26 years, owing to low initial life expectancy and increased health services, such as immunization coverage and community participation and health promotion. Cambodia lost more than 14 years in life expectancy from 1967 to 1977 as a result of war and the Khmer Rouge rule, which was responsible for more than a million deaths from 1975 to 1979. Life expectancy recovered as social and economic reconstruction took hold in the late 1980s. The Lao People's Democratic Republic has experienced an increase in life expectancy of 15 years since 1970; however, its life expectancy, at 55 years, is one of the lowest in the Asia-Pacific region.

Life expectancy trends in North and Central Asia contrast sharply with those of other subregions (figure II.3). Several countries have experienced a drop in life expectancy at some point since 1970. In some countries this resulted from a one-off event, but Kazakhstan, Kyrgyzstan and the Russian Federation experienced a continuous drop in life expectancy. In the Russian Federation, it declined from 69.4 years in 1987 to 65.2 years in 2004, with male life expectancy dropping from 64.8 to 58.8 years, the lowest in the subregion. Income inequalities, particularly after the disintegration of the former Union of Soviet Socialist Republics, and a crisis in health care appear to be the main reasons for the sharp drop in life expectancy in these countries. Socially weaker groups are mainly affected. In addition, alcoholism, poor diets and tuberculosis have all had a significant effect on life expectancy in the Russian Federation.

**Life expectancy has fallen in some countries in North and Central Asia**

**Figure II.3. Life expectancy trends in North and Central Asia**



In the Pacific subregion, gains by Vanuatu (22.3 years) and Papua New Guinea (17.2 years) outpaced those in other countries. However, life expectancy in Papua New Guinea is still 56 years, one of the lowest levels in the ESCAP region.

## b. Infant mortality

**Most countries in Asia and the Pacific have experienced a sharp drop in the infant mortality rate**

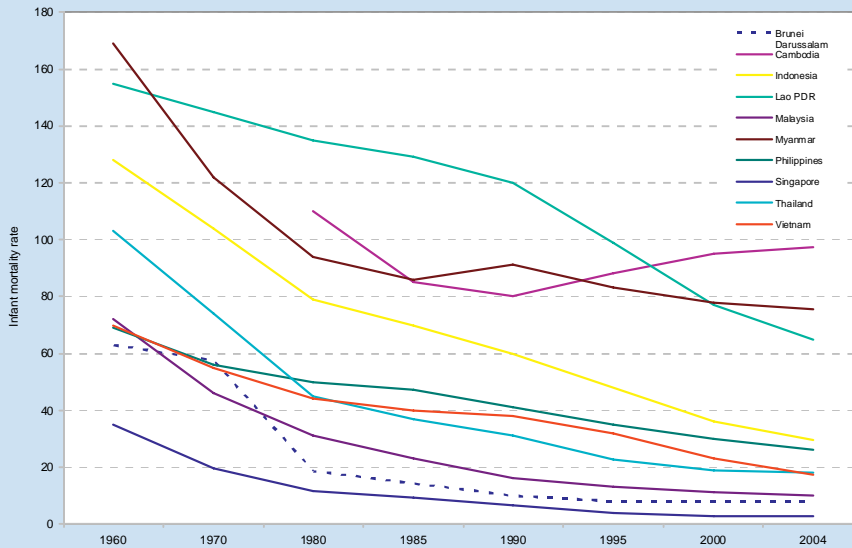
The most significant health outcome in Asia and the Pacific since 1960 is the sharp drop in the infant mortality rate (IMR) experienced by almost all countries in the region. This has contributed to the region's higher life expectancy. In more advanced countries, such as the Republic of Korea, IMR declined by 94.3 per cent to 5.1 per 1,000 live births between 1960 and 2004. In Singapore, it dropped by 92.5 per cent to 2.6 per 1,000 live births, the lowest in the Asia-Pacific region. South and South-West Asia has surpassed other subregions in reducing the number of infant deaths from 1960 to 2004, led by the Islamic Republic of Iran, Maldives, Nepal and Turkey, although some of these countries still have relatively high IMRs compared with other countries of the region. Poorer countries, such as Maldives and Nepal, have recorded the largest drop in absolute number of infant deaths per 1,000 live births (from 212 in 1960 to 58.6 in 2004 and from 180 in 1960 to 35.4 in 2004, respectively), an achievement that is all the more impressive given their resource constraints.

However, one of the more worrisome trends in infant mortality in the region is the recent regression from early achievements in some countries. In Cambodia, IMR has increased by 22 per cent from 1990 to 2004 (figure II.4). In Kazakhstan, it increased by 19 per cent in the same period and in Turkmenistan it rose by 11 per cent (figure II.5). The number of births attended by health personnel has declined marginally since 1995 in both Cambodia and Kazakhstan; on the other hand, in Turkmenistan it



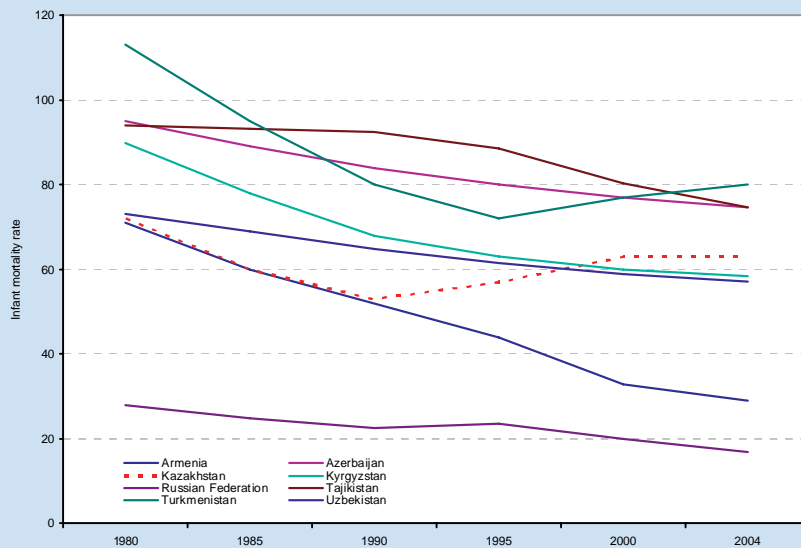
increased marginally. Interestingly, the number of physicians increased in all three countries over the same period. Therefore, the increase in IMR in these countries could be attributed to deficiencies in primary care that affected post-natal care.

**Figure II.4. Infant mortality trends in South-East Asia**



Source: World Bank, *World Development Indicators 2006* (CD-ROM) (Washington D.C., World Bank, 2006)

**Figure II.5. Infant mortality trends in North and Central Asia**



Source: World Bank, *World Development Indicators 2006* (CD-ROM) (Washington D.C., World Bank, 2006).

**Policy is a key determinant of health outcomes**

In Cambodia, the increase in infant mortality has been brought by an increase in post-neonatal (between the first month and the first birthday) mortality. A high rate of diarrhoeal diseases in infants, low levels of infant immunization against childhood diseases and irrational use of drugs have all contributed to the increases in IMR.<sup>9</sup> In Kazakhstan, the recent IMR increase is due to a deterioration of the physical environment and living standards of the poor, along with a lack of medicines and health facilities. Despite its efforts to reform the health sector, Turkmenistan has the highest IMR in Central Asia. In all the above countries, the deterioration of the health sector reflects widening income disparities. It could also be due to poor governance, including inefficiency in the management of scarce financial and human resources, which appears to have a high correlation with low health outcomes.

Economically advanced countries in the region have very low IMRs. Malaysia, a middle-income country, and Sri Lanka, a lower middle-income country, seem to be exceptional in this respect, having brought their IMRs down to the relatively low levels of 10.2 and 12.0 per 1,000 live births, respectively, by 2004. Sri Lanka's achievement, in particular, is the result of public sector emphasis since independence on attaining universal health-care coverage.

## **C. THE RELATIONSHIP BETWEEN HEALTH AND GROWTH**

Resources have clearly played a critical role in shaping the region's socio-economic development, including improvements in health. Low income can be a serious constraint on good health outcomes. Health expenditure in most countries in Asia and the Pacific as a percentage of GDP has remained low in relation to the region's advanced economies, let alone those of Europe and North America. For example, government expenditure on health in Myanmar and Pakistan in 2003 was less than 3 per cent of GDP, far behind more advanced economies in the region, such as Japan (7.9 per cent), the Republic of Korea (5.6 per cent) and Singapore (4.5 per cent).

However, health outcomes in the Asia-Pacific region are determined not only by the level of income but also by the policy environment and the resulting quality of service. Good and targeted social policies can bring in relatively better health outcomes (as in Sri Lanka and Thailand) even when income levels are low. Health sector reforms, particularly those aimed at encouraging private investment in the health sector, can pay high dividends. One of the main reasons for weak health outcomes in some countries in the region is the lack of quality health infrastructure and trained health personnel. Growth should be accompanied by pro-poor policies aimed at redistributing the benefits of growth to the poor.

At the same time, a high level of economic growth does not automatically translate into improved health outcomes, as witnessed in some countries in the region, particularly in Central Asia (see box II.1) and South Asia. Moreover, countries that are well endowed with natural and human resources have sometimes failed to succeed until the right policy environment was in place. China and India are good

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<sup>9</sup> Cambodia Ministry of Health, "National Health Survey 1998", available at: <<http://www.camnet.kh/nphri/assets/images/ExecSumm.pdf>>.

examples. In countries with internal conflicts or in those which are slow to implement reforms, or where corruption is rampant, economic and social development has always been hampered.

### Box II.1. Economic transition and health systems in Central Asia

In Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan and Tajikistan, the dissolution of the Soviet Union in the late 1980s signalled the end of central planning and the transition to market economies. The transition proved particularly painful in the social sector. During the 1990s, hard-fought gains in health were halted and in some cases reversed. Real output declined and financial transfers between the former Soviet republics ended. This had a severe impact on government budgets. The worst hit country was Tajikistan, where GDP fell by more than 60 per cent and the ratio of government expenditure to GDP dropped from 50 to 16 per cent between 1991 and 1998.<sup>a</sup> The situation in the other Central Asian republics was less extreme but still troublesome.

Macroeconomic pressures led to declining and inequitable public provision of health services. Although this resulted in the emergence of higher private expenditure, sharply declining incomes prevented most people from offsetting the fall in public health services with out-of-pocket spending; as a result, public health deteriorated.

The Central Asian republics inherited a model of care that offered universal access to a basic level of services but also had some drawbacks. Health services were centrally administered, and when the centrally planned system fell apart, most of the formal hierarchy remained in place but the quality of services and infrastructure disintegrated. Equipment deteriorated and drug shortages developed. Even when health systems functioned relatively well, they focused too heavily on tertiary care, leaving only 10 to 15 per cent of the budget for primary care. Health-care systems are still burdened with overcapacity in the tertiary sector and suffer from shortages of funds and human resources in the primary health sector.

Government funding is expected to continue as the main source of funding for those health systems. As tax revenues increase, social sector funding should improve. However, although government revenues have increased, their contribution to total health expenditure is falling. Kazakhstan and Turkmenistan have made efforts to increase State contributions to health. However, in the other countries, State contributions have increased much less than total health spending, threatening increased inequities in access to health care. Governments therefore need to increase the share of health in total government expenditure and ensure that funding for the social sector will benefit from any future buoyancy in tax revenues.

More specifically, they need to increase the focus on primary health care. Retraining staff and redeploying resources to primary care is an imperative. At present, there is limited capacity at the lower levels of administration to raise or

*Continued overleaf*

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manage resources. Local decision-making capacity needs to be enhanced if health systems are to be made more sustainable. This would ensure better health outcomes at lower costs and increased equity through the redistribution of services to rural areas, where most of the poor live.

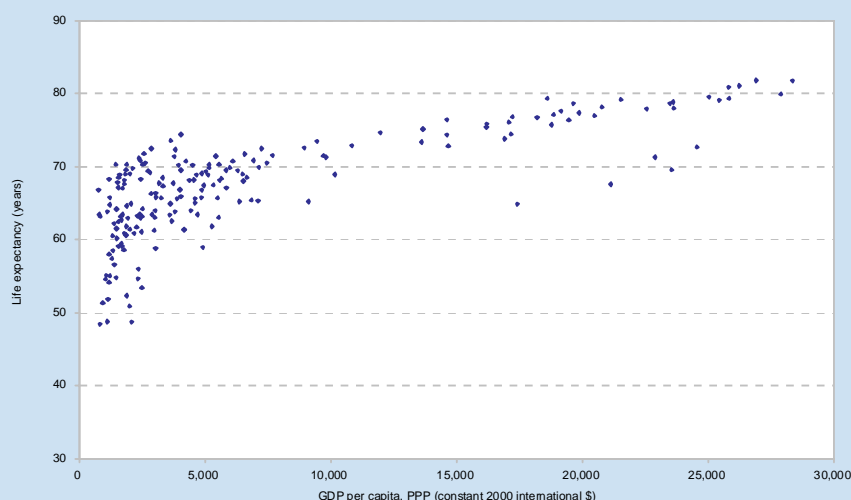
<sup>a</sup> M. McKee and others (eds.), *Health Care in Central Asia* (Buckingham, Open University Press, 2002).

## Health and income levels do not rise in tandem

### 1. INCOME AND LIFE EXPECTANCY

In order to understand the nexus between health and economic growth, the relationship between per capita income and health indicators, such as life expectancy and IMR, needs to be analysed. As seen in figure II.6, which plots per capita income (GDP in purchasing power parity (PPP) terms) and life expectancy in countries in Asia and the Pacific, the relationship between income and health is non-linear. At low income levels there is a sharp improvement in health as incomes increase. There is a strong positive relationship between the two variables up to a threshold per capita income level of about \$4,000 (PPP terms). The relationship becomes weak as incomes rise beyond that point, although it remains positive.

**Figure II.6. GDP and life expectancy trends in Asia and the Pacific, selected years, 1980-2004**

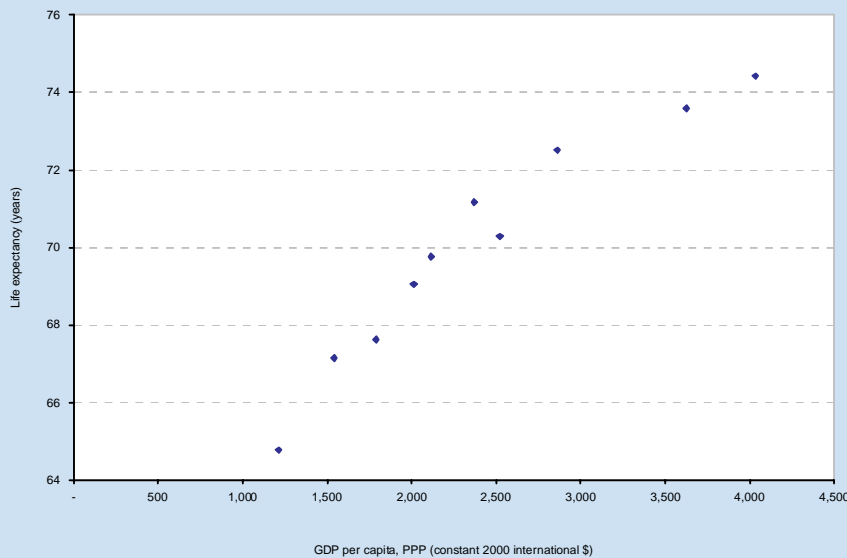


Source: World Bank, *World Development Indicators 2006* (CD-ROM) (Washington D.C., World Bank, 2006).

A similar relationship is found in South and South-West Asia, South-East Asia and the Pacific. In North and Central Asia, the relationship between income and life expectancy is weak. Despite rising income levels, life expectancy in such countries as the Russian Federation is declining because of socio-economic and behavioural changes in the subregion, since they began their transition to a market economy in the early 1990s.

In contrast, life expectancy has improved rapidly in such countries as Sri Lanka and Viet Nam, in spite of their low income levels (figure II.7). This highlights two points. First, human development is a necessary but not sufficient condition for economic growth. Second, as mentioned above, well-targeted social policies, including increased resource allocation for the health sector, can go a long way towards improving health outcomes. A similar relationship can be seen in countries such as Indonesia, Malaysia, Philippines and Thailand, which have graduated to middle-income or lower middle-income status during the past decade or so. In these economies, life expectancy has improved by 25 to 62 per cent during the past 45 years, largely as a result of public sector health policies.

**Figure II.7. GDP and life expectancy trends in Sri Lanka and Viet Nam, selected years, 1980-2004**

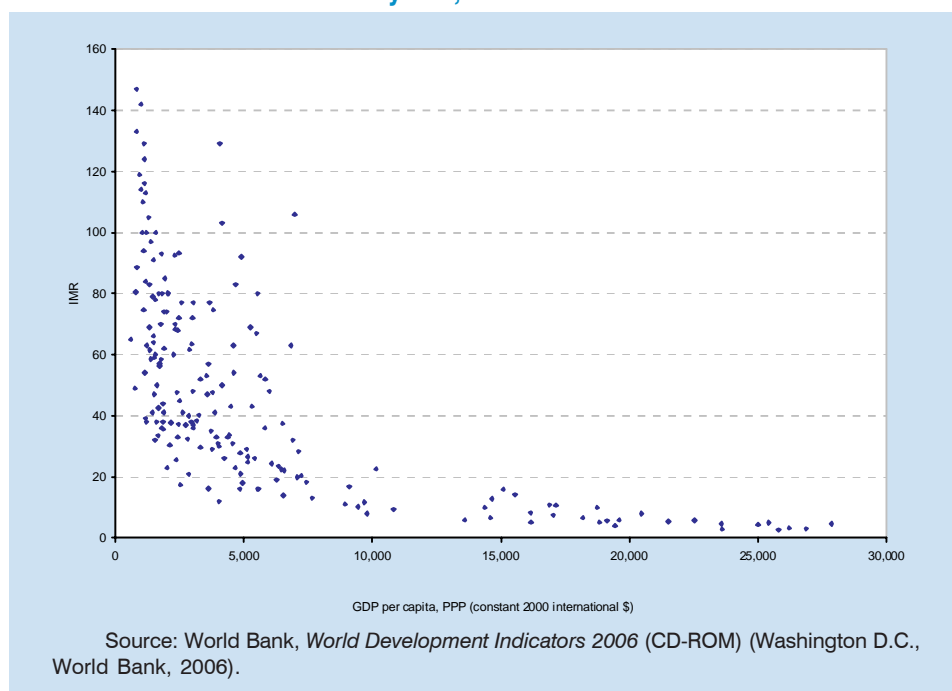


Source: World Bank, *World Development Indicators 2006* (CD-ROM) (Washington D.C., World Bank, 2006).

## 2. INCOME AND INFANT MORTALITY

The relationship between income and IMR is also non-linear (figure II.8). At a low level of development, IMR declines faster, with only a slight improvement in per capita income levels. Here again, progress in reducing IMR slows after a threshold level of about \$4,000 (in PPP terms). A similar relationship is seen in all subregions except North and Central Asia, where the relationship is weakened by deteriorating health systems and health conditions.

**Figure II.8. GDP and infant mortality trends in Asia and the Pacific, selected years, 1974-2004**



### 3. EFFECT OF LIFE EXPECTANCY ON GROWTH

Econometric studies with global coverage and those that are country-specific indicate a positive relationship between health and growth. For example, a cross-country analysis covering over 100 countries found that improved life expectancy had a strong positive impact on economic growth.<sup>10</sup> Such research suggests that initial health may even be a better predictor of subsequent economic growth than initial education.

Empirical evidence also supports a relationship between the average survival rate and economic growth. For example, for the poorest countries, a 1 per cent improvement in the average survival rate has been associated with an approximate increase of 0.05 per cent in the growth rate.<sup>11</sup> A one percentage point increase in the average survival rate can also increase labour productivity by about 2.8 per cent.<sup>12</sup>

### 4. EFFECT OF OVERALL HEALTH ON GROWTH

<sup>10</sup> R.J. Barro, Health and economic growth, Pan American Health Organization, Programme on Public Policy and Health, Health and Development Division (1996), available at: <http://www.paho.org/English/hdp/hdd/barro.pdf> and D. Bloom, D Canning and J. Sevilla, "The effect of health on economic growth: theory and evidence", NBER working paper No. 8587, (2001), available at: <http://www.nber.org/papers/W8587>.

<sup>11</sup> A. Bhargava and others, "Modelling the effect of health on economic growth", *Journal of Health Economics* (2001), pp. 423-440.

<sup>12</sup> D. Bloom, D. Canning and J. Sevilla, "Health worker productivity and economic growth", School of Public Policy and Management, Carnegie Mellon University (2002), mimeo, available at: <http://equilibrium.heinz.CMU.edu/Mgaynor/AHEC/Bloom%20paper2.pdf>.

Empirical evidence also points to the positive impact of overall health conditions on growth. Health improvements can lead to a 0.2 per cent gain in the economic growth rate annually;<sup>13</sup> in fact it is estimated that 30 per cent of the income growth rate of the United Kingdom of Great Britain and Northern Ireland during the twentieth century was due to health and nutritional improvements.<sup>14</sup> On the other hand, weak health conditions can also have a negative impact on income-earning capacities. For example, health deterioration can lead to a 1 per cent loss in total earnings.<sup>15</sup>

## 5. EFFECT OF NUTRITIONAL INTAKE AND HEALTH EXPENDITURE ON GROWTH

Enhanced nutritional status also contributes to growth as it improves health and enhances productivity. For example, in South Asia an increase in the daily dietary energy supply of 500 kcal corresponds to an increase in economic growth of 1.7 per cent.<sup>16</sup> Therefore, although a large number of the region's malnourished people live in South Asia, there are growth opportunities in this subregion. Several studies find that health spending has a statistically significant impact on growth. This implies the need for many countries with low levels of spending to spend more. Yet, success will be limited without attention to efficiency, equity and a comprehensive approach to quality delivery of health-care services to all within the health sector and beyond.

*Improved diets boost economic growth, better incomes help people live longer*

## 6. EFFECT OF INCOME ON HEALTH

Other studies support the link between health and growth. For example, a study of 115 low- and middle-income countries found that increases in average income levels contributed to a 20 per cent gain in life expectancy during the period from 1960 to 1990.<sup>17</sup> The study reveals, however, that other factors are more important than income in determining health outcomes. Half of the gains in life expectancy are due to technical advances. As discussed above, these results reflect the interaction of both positive and negative effects of income growth on intermediate outcomes. Positive effects may arise from access to education and health services, while the negative effects of lifestyle changes may offset some of the benefits of income growth

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<sup>13</sup> D. Jamison, L. Lau and J. Wang, "Health's contribution to economic growth in an environment of partially endogenous technical progress", Disease control priorities project working paper, No. 10 (2004), available at: < <http://www.fic.nih.gov/dcpp> >.

<sup>14</sup> R.W. Fogel, "Economic growth, population theory and physiology: The bearing of long-term process on the making of economic policy", *American Economic Review* (1994), vol. 83, No. 3, pp. 369-95.

<sup>15</sup> T. Fukui and Y. Iwamoto, "An estimation of earning losses due to health deterioration", paper presented at the *International Forum for Macro Economic Issues* 17-19 February 2003, available at: <[http://www.esri.gov.jp/jp/prjrc/macro14/osh:totsubashi\\_t2.pdf](http://www.esri.gov.jp/jp/prjrc/macro14/osh:totsubashi_t2.pdf)>.

<sup>16</sup> For example World Bank, "Repositioning nutrition as central to development: a strategy for large scale action" (Washington D.C., World Bank, 2005) finds that under-nutrition in Afghanistan, Bangladesh, India and Pakistan ranged between 38 and 51 per cent. This compares with 26 per cent in sub-Saharan Africa. The study estimates that malnutrition costs poor countries as much as 3 per cent of their annual economic growth.

<sup>17</sup> J. Wang and others, *Measuring Country Performance on health: Selected indicators for 115 countries* (Washington D.C., World Bank, 1999).

on health outcomes. In sum, a substantial body of evidence indicates that improvements in health status can indeed have a strong positive influence on economic growth.

## **D. INVESTING IN HEALTH: OPPORTUNITIES AND CHALLENGES**

As indicated above, the Asia-Pacific region has, on the whole, achieved significant gains in health over the past four decades, but many challenges remain. Socio-economic, demographic and epidemiological changes confront policymakers in the region with changing diseases profiles and complex new issues to tackle, the most important of which are:

- (a) The growth of chronic diseases, both taking a heavy toll in deaths and resulting in demand for costly health services;
- (b) The continued threat of infectious diseases, such as avian influenza, HIV/AIDS, tuberculosis and malaria;
- (c) An ageing population and its health implications;
- (d) Increasing infrastructure and resource requirements in the health sector.

**Non-communicable diseases could cost China \$558 billion from 2005 to 2015**

Studies in some countries in the Asian and Pacific region reveal that cardiovascular and other non-communicable diseases associated with economic growth and higher income lifestyles could impose a heavy burden on health systems. Between 2005 and 2015, the national income lost as a result of non-communicable diseases in China, India and the Russian Federation is projected at \$558 billion, \$236 billion and \$303 billion, respectively.<sup>18</sup> Much of this is avoidable. A 2 per cent annual reduction in projected rates of death from non-communicable diseases between 2005 and 2015 would correspond to the prevention of 36 million deaths. This would translate into significant labour supply gains and a cumulative gain in income estimated at \$75 billion in China, India, Pakistan and the Russian Federation combined.<sup>19</sup>

**The positive link between health and growth creates opportunities for investment**

The threat of HIV/AIDS to countries in Asia and the Pacific cannot be underestimated either. Approximately half a million people die of the disease each year in the region; millions of people have been impoverished and the poorest among them have been rendered destitute. The financial loss to ESCAP member countries from HIV/AIDS was estimated at \$7.3 billion in 2001 and is projected to reach \$17.5 billion per year by 2010. Between 2003 and 2015, the disease will impoverish some 5.6 million people each year in Cambodia, India, Thailand and Viet Nam alone. Investments to establish comprehensive responses are urgently needed in order to reduce the number of deaths, the disease burden and the financial losses.<sup>20</sup>

<sup>18</sup> WHO, *Preventing Chronic Diseases: A Vital Investment* (Geneva, WHO, 2005).

<sup>19</sup> D. Abegunde and A. Stanciole, *An Estimation of the Economic Impact of Chronic Noncommunicable Diseases in Selected Countries* (Geneva, WHO, 2006).

<sup>20</sup> ADB/UNAIDS, *Asia-Pacific Opportunity: Investing to Avert an HIV/AIDS Crisis* (ADB/UNAIDS Study Series, 2004).



In spite of the above, the positive link between health and growth provides an investment opportunity for both the public and the private sector. Governments have the primary responsibility for providing health-related public goods, such as primary health-care services. Abundant opportunities exist for the private sector in areas where the public sector is failing to deliver services efficiently. It is essential, though, that mechanisms are in place to ensure that private-sector activities do not adversely affect equity, especially in terms of providing the poor with health care of an acceptable standard.

The key issues regarding investment in health are discussed in greater detail in the chapters that follow, but are summarized below.

## 1. MACROECONOMIC POLICY

National macroeconomic policy, in particular fiscal and monetary policies, can be designed and implemented in a way that is conducive to the development of an efficient health sector. For example, a special tax (say 1 per cent) could be imposed on personal and corporate income and such revenue could be credited to a human development fund. The justification for such a tax is that health and education in most developing countries are subsidized. External donors could also be encouraged to contribute to such a fund, bearing in mind that developing countries are not compensated for losses associated with the brain drain to developed countries. These resources could be utilized to develop human capital by promoting health and education. Fiscal policy can also be used to improve the allocation and utilization of funds. In addition, effective monetary policy can be used to further promote the health sector. For example, a lower inflation rate can have a disproportionately high positive impact on the poor through relatively higher real income (in view of the greater relative expenditure on consumption goods and less tax being paid on these) than a higher rate.

*Monetary and fiscal policy, good governance and human resource management are essential tools for strengthening the delivery of health care*

## 2. GOOD GOVERNANCE

Good governance is essential for efficient and equitable health systems. Weak governance undermines the functioning of health systems and has a serious impact on public health in developing countries, particularly where the public sector is often the sole, or main, provider of health services. Common weaknesses in developing countries include: political interference in the management of health institutions; poor human resource management, including recruitment, training, promotions and transfers; and poor allocation of resources. One consequence is the high frequency of work stoppages by health professionals. Weak governance also results in low professional standards in the delivery of health services and corruption, which leads to much misallocation of resources. High priority should be given to improving governance at all levels in order to improve health and promote growth. This should go hand-in-hand with pro-poor policies to ensure that all sectors of society have access to affordable health care.

### 3. HUMAN CAPITAL DEVELOPMENT

Trained health personnel are crucial for the delivery of health services, and shortages of health professionals are increasingly being felt in some countries in the region, hampering health service delivery. The greatest shortage of health-care professionals in absolute terms is in the South and South-East Asian subregions, particularly because of the increasing needs of Bangladesh, India and Indonesia. In relative terms, however, countries such as Afghanistan, Bangladesh, Bhutan and Timor-Leste have the lowest levels of skilled health-care personnel in the region, each with less than 20 per cent of births attended by skilled health staff. Meanwhile, countries with the lowest relative need have the highest number of health workers. The density of health-care workers in South and South-East Asia is 4.3 per 1,000 population, compared with 18.9 in Europe and 24.8 in the Americas. Among the underlying reasons for this gap in health workers are misallocation of human resources, ineffective training policy, weak institutions, lack of incentives for, and motivation of, health professionals and financial constraints.<sup>21</sup>

Addressing these issues requires an integrated approach that takes into account critical sectoral needs and resource availability. Potential gains in efficiency combined with resource constraints on Governments may warrant opening up the health sector to private investment, as long as equity issues are not neglected. Such an initiative would provide room for strengthening public health institutions as well as increasing overall efficiency in health service delivery.

### 4. HEALTH SYSTEMS DEVELOPMENT

Governments should give priority to developing health infrastructure and providing quality health services for several reasons. First, the inadequate health infrastructure in many poor countries in the region – as reflected by long queues, high IMR and low life expectancy – negatively affects social welfare. Second, investment in human capital and public health increases labour productivity and thereby generates greater economic growth and income. Third, the health sector has the potential to become an active market for health products and services, although regulations are needed to ensure that all groups have access to good quality health care.

In most countries in the Asian and Pacific region, private expenditure on health far exceeds public sector spending. In China and India, private spending in 2003 accounted for 64 and 75 per cent of total health expenditure, respectively. In many countries, private expenditures are almost entirely out-of-pocket, and private insurance or other pre-paid plans play only a marginal role. Although insurance markets are usually associated with a moral hazard problem, such negative aspects could be addressed by strong regulatory mechanisms.

Numerous studies show that out-of-pocket payments are an inequitable and inefficient way to mobilize resources for health services.<sup>22</sup> The very nature of health

**Out-of-pocket expenditure on health is inequitable and inefficient, but in many ESCAP member countries, it far exceeds public spending**

<sup>21</sup> WHO, *World Health Report 2006* (Geneva, WHO, 2006).

<sup>22</sup> WHO, *Strategy on Health Care Financing for Countries of the Western Pacific and South-east Asia Regions (2006-2010)* (Geneva, WHO, 2005).

issues requires certain aspects of health infrastructure to be treated as a public good, but in other aspects the private sector can play an important role. Public-private partnerships can be considered in areas where such arrangements could yield better outcomes. Investment in targeted public social protection mechanisms would also be necessary to protect the neediest and most vulnerable groups.

As noted above, the lack of quality health services is one of the main reasons for weak health outcomes. Although countries in Asia and the Pacific have made some progress in providing health services, the level of service delivery and the quality of service often leave much to be desired. In many poor countries, such as Bangladesh, Bhutan and Nepal, health systems are adversely affected by a lack of trained health staff as well as a lack of good quality physical infrastructure. The coverage of health services continues to be poor in low-income countries, particularly in least developed countries and in rural areas and city slums. As a result, many poor people have to travel far or have other difficulties availing themselves of public services. The opportunity cost of this for those living on daily wages, particularly in the informal sector, is very high. Even when health services are free, people face transport and other costs to gain access to services. In addition, cultural barriers in some countries also deny access to health services, particularly for women, the poor and other vulnerable groups. Increasing access to basic health services, especially for such people, can pay substantial dividends in terms of better health and its contribution to growth.

## **5. INVESTMENT IN NEW TECHNOLOGY AND RESEARCH AND DEVELOPMENT**

As noted above, technical progress has been the basis for substantial health gains in the past. The evolution of viruses and diseases and their adaptation to environments and drugs make continuous technical progress a necessity requiring investment in new technology and R and D. Yet, even in Australia, one of the region's developed countries, investment in health R and D has been a relatively low 0.25 per cent of GDP, compared with a high of 1.1 per cent of GDP in some OECD countries. This is despite the fact that every dollar spent on health R and D brings in an annual rate of return of five dollars. In some cases, R and D returns have been even higher, for instances, returns on cardiovascular R and D were eightfold in Australia.<sup>23</sup> To achieve good returns, health R and D investment should be strategically targeted to cost-effective, high priority areas. High rates of return make health R and D an attractive investment option for the private sector. Strategic partnerships between the public and private sectors can translate such R and D results into drugs produced and made available at low cost.

## **E. CONCLUSION**

Evidence at both the regional and global levels shows a clear two-way linkage between health and growth. Economic growth appears to lead to large health gains, particularly at low levels of economic development. Empirical evidence shows that an improvement in health enhances labour productivity and leads to gains in economic growth.

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<sup>23</sup> Access Economics, *Exceptional Returns: The value of investing in health R&D in Australia*, (Canberra, Australian Society for Medical Research, September 2003).

Country evidence also shows that improved health outcomes alone are not sufficient for sustained high economic growth. Education, strong macroeconomic policies and efficient institutional set-ups are equally significant. However, improving public health can be an important tool for reducing poverty. In order for it to be effective, greater emphasis on health sector improvement is required at the national, regional and global levels. As the next two chapters underline, it also requires greater emphasis on the universalization of health care, ensuring that women, the poor and other vulnerable groups have access to health services.

## CHAPTER III

# HEALTH SYSTEMS AND THE MILLENNIUM DEVELOPMENT GOALS

### INTRODUCTION

**B**etter health not only contributes to broad economic development but is central to the achievement of the MDGs and the overarching goal of poverty reduction. Three of the eight MDGs (Goals 4, 5, and 6) are health-specific: reduce child mortality, improve maternal health and combat HIV/AIDS, malaria and other diseases. Of the other five, Goals 1, 7, and 8 are also health-related in that improved health outcomes both influence, and are influenced by, the achievement of these Goals. Improvements in health also depend on, and contribute to, the achievement of the remaining Goals in education and gender.

In this chapter, section A briefly reviews the progress made to date in the ESCAP region towards achieving the health-related MDGs in the context of the MDGs as a whole. Section B looks at the obstacles and challenges to health systems and achievement of the health-related MDGs. Section C reviews the role of social and environmental determinants in the achievement of the health-related MDGs. Section D discusses additional challenges to health systems arising from current and changing trends and patterns related to demographic and epidemiological changes. Section E identifies policy options for changes within health systems and across related sectors to improve the health status of populations, increase opportunities and accelerate progress for countries in the region to reach the health-related MDGs on time. In other words, building up and strengthening health systems is crucial if more progress is to be made towards the MDGs and beyond.

The assessments in this chapter build on three recent reports: *A Future within Reach: Reshaping Institutions in a Region of Disparities to Meet the Millennium Development Goals in Asia and the Pacific*;<sup>24</sup> *The Millennium Development Goals: Progress in Asia and the Pacific 2006*;<sup>25</sup> and *Achieving the Health Related Millennium Development Goal in Asia Pacific: Policies and Actions within Health Systems and Beyond*.<sup>26</sup> The latest MDG data come from the mid-2006 global MDG indicator database maintained by the United Nations Statistics Division.<sup>27</sup>

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<sup>24</sup> United Nations publication, Sales No. E.05.II.F.27.

<sup>25</sup> ESCAP, UNDP and ADB, *The Millennium Development Goals: Progress in Asia and the Pacific 2006*, available at: <http://www.mdgasiapacific.org>.

<sup>26</sup> ESCAP, UNDP and ADB, forthcoming in 2007.

<sup>27</sup> <http://mdgs.un.org/unsd/mdg/Default.aspx> 15 November 2006.

## A. PROGRESS TOWARDS ACHIEVING THE HEALTH-RELATED MILLENNIUM DEVELOPMENT GOALS

**Despite its economic progress, the Asia-Pacific region has a share of global poverty, child malnutrition and tuberculosis that is much higher than its share of the world's population**

**Two thirds of the world's underweight children are to be found in five ESCAP member countries alone**

### 1. AVERAGES AND ABSOLUTE NUMBERS<sup>28</sup>

Asia and the Pacific, as a region, is making good progress towards achieving a majority of the MDGs by 2015. However, behind the regional averages a more dismal picture emerges. Progress by many countries is still slow, and performance on some targets, particularly health-related ones, including water and sanitation, is unsatisfactory. Table III.1 shows that many countries are likely to miss vital health targets or even two thirds of all the targets.

The good news on progress is that prevalence and death rates have started to fall. Increases in forest cover and protected areas and decreases in carbon dioxide and chlorofluorocarbon emissions suggest that a reversal of the loss of environmental resources has begun. Progress on halving poverty and hunger, achieving universal primary education and eliminating gender disparities at all levels of education is faster than what is required to meet the targets.

The bad news is that, in terms of absolute numbers, the scale of deprivation faced by the Asia-Pacific region is daunting. It accounts for a major share of the world's population suffering from many attributes of deprivation. These include population living in rural areas without access to sanitation, underweight children, people suffering from malnourishment, population living on less than a dollar a day and the number of tuberculosis cases.

The ESCAP region includes five of the world's seven most populous countries: Bangladesh, China, India, Indonesia and Pakistan. These five countries, together and sometimes individually, account for large absolute numbers of deprived people. They have over two thirds of the world's people living in rural areas without access to sanitation, underweight children, people living on less than a dollar a day, and the tuberculosis cases. Together, they also account for more than 60 per cent of people in the world without access to water, and of all people in urban areas without access to sanitation.

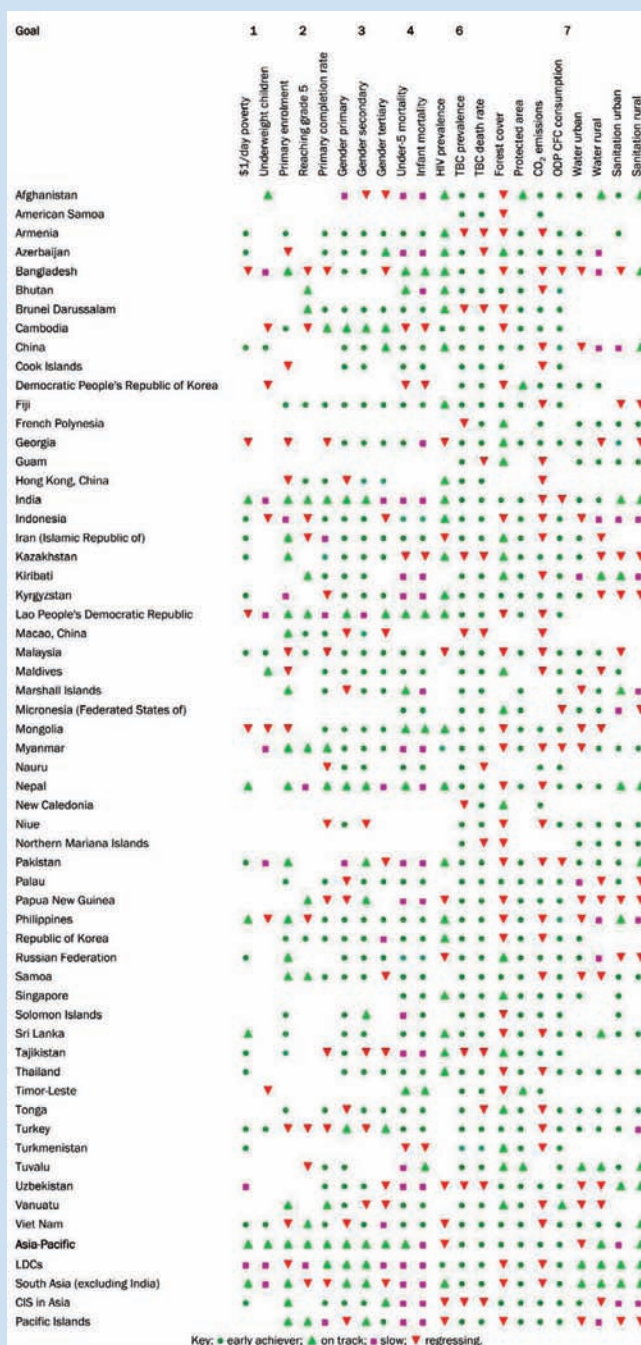
The region also includes such countries as Afghanistan, Cambodia and Timor-Leste as well as some Central Asian countries, which have only recently started to recover from decades of war and civil strife and whose performance in terms of progress towards MDGs and poverty reduction is weak. Progress is also slow in some parts of the region's five giants as enormous disparities exist, for example, between rural and urban China, north-eastern and southern India, and different provinces of Indonesia.

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<sup>28</sup> Unless otherwise stated, all data and references in this section are sourced from ESCAP, UNDP and ADB, *A Future within Reach: Reshaping Institutions in a Region of Disparities to Meet the Millennium Development Goals in Asia and the Pacific* (United Nations publication, Sales No. E.05.II.F.27); ESCAP, UNDP and ADB, *The Millennium Development Goals: Progress in Asia and the Pacific 2006* (2006), available at: <http://www.mdgasiapacific.org>.



**Table III.1. Asian and Pacific countries that are on track and off track to achieve the Millennium Development Goals**



LDCs: Least developed countries. CIS: Commonwealth of Independent States.

Source: ESCAP, UNDP and ADB, *Millennium Development Goals: Progress in Asia and the Pacific 2006*, available at: <http://www.mdgasiapacific.org>.

As a region, Asia and the Pacific is on track for the indicators under Goals 1, 2, 3 and 4, Goal 6 as well as Target 8 and Goal 7, Target 9, but considerable work remains to be done in these areas because of the wide diversity of experience and achievement among countries, which is also evident in table III.1. Although the Asia-Pacific region is on track to achieve the targets related to access to water and sanitation in rural areas, \$1/day poverty, prevalence of underweight children and tuberculosis, its share in the global number of people affected by these dimensions of poverty exceeds its share of the world population, in some cases substantially.

As a group, Asian and Pacific least developed countries have the region's highest rates of child mortality, maternal mortality and tuberculosis prevalence and death. They are also off track on all indicators with the exception of two tuberculosis measures. In contrast, the region's least developed countries are on track to achieve, or have already achieved, the targets under Goal 7, except with regard to the land area covered by forests.

There is substantial overlap between South Asia, excluding India, and the region's least developed countries. Afghanistan, Bangladesh, Bhutan, Maldives and Nepal belong to both groups. It is therefore not surprising perhaps that both groups of countries are similar in terms of the progress they have achieved towards meeting the targets, absolute levels of achievement and the number of people affected.

The former Soviet republics in Central Asia have particular problems reaching health-related targets. As a group, they are regressing on HIV and tuberculosis prevalence and mortality rates, and their progress in reducing child mortality is slow. The last point may be related to the fact that the subregion is also making slow progress connecting rural dwellers to clean water and basic sanitation. Central Asian countries as a group, however, are early achievers for all indicators under Target 9 of Goal 7 (integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources).

Progress in the Pacific subregion is difficult to assess because the necessary data are often unavailable but the main areas of concern are similar to those of the Central Asian countries. Like them, the Pacific subregion is also off track on child mortality-related targets as well as access to water and sanitation (regressing, except for water in rural areas on which it is slow).

**Nearly 5 million children in the region die every year before reaching the age of 5**

## **2. PROGRESS ON HEALTH TARGETS<sup>29</sup>**

### **a. Target 4: Reduce the under-5 mortality rate by two thirds between 2000 and 2015**

During the past decade, the ESCAP region as a whole has made steady progress in reducing the IMR and under-5 mortality rates (U5MR). However, MDG 4 remains elusive for many countries as close to 5 million children across the region still die every year before reaching the age of five. These represent 50 per cent of

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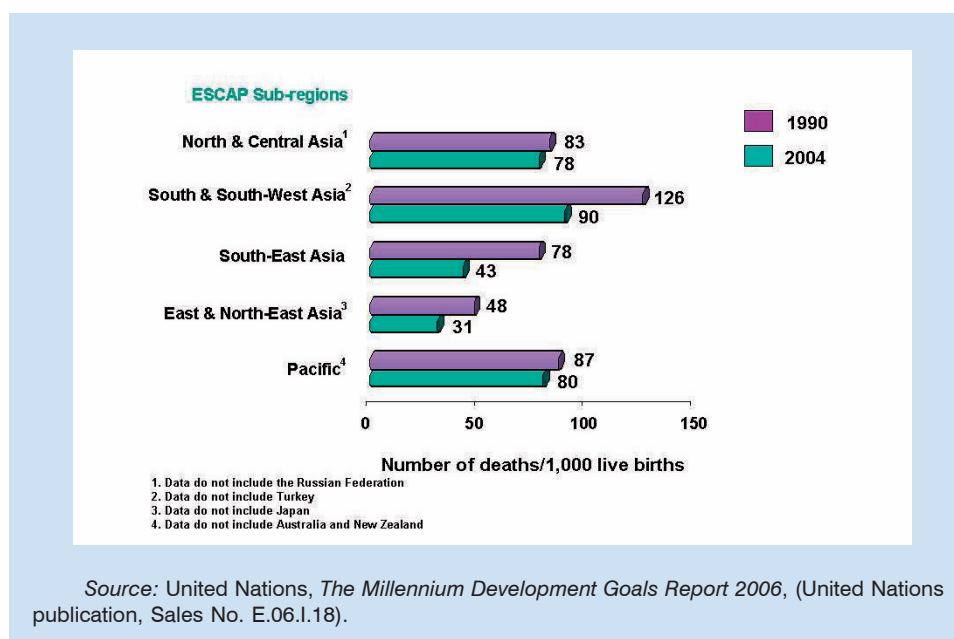
<sup>29</sup> Unless otherwise stated, all references and data in this section are sourced from ESCAP and ADB (2007, forthcoming); *Technical Background Paper on MDGs*.



all under-five deaths in the world.<sup>30</sup> The region's U5MR (65 per 1,000 live births) is more than double the rate in Latin America and the Caribbean (31 per 1,000 live births).

Progress towards this Goal varies widely across the region (figure III.1). The situation has improved significantly in East and North-East Asia, largely due to progress in China. Although China has the second largest number of under-5 deaths in the ESCAP region – 539,000 in 2004 – it reduced U5MR to 31 deaths/1,000 live births in 2004.<sup>31</sup>

**Figure III.1. Under-5 mortality in the ESCAP region**



By contrast, some of the highest U5MRs in the region are in the South and South-West Asian subregion. India has the highest absolute number of under-5 deaths in the region, over 2.2 million in 2004, while Afghanistan, where 359,000 children did not reach the age of five in 2004, has the region's highest U5MR and the fourth highest in the world after Sierra Leone, Angola and Niger.<sup>32</sup> This subregion accounts for 37 per cent of the total population of the Asia-Pacific region and with a few exceptions<sup>33</sup> have a U5MR between 76 and 103 deaths per 1,000 live births. Nevertheless, Bangladesh, Bhutan and Nepal have made significant progress towards the Goal in the last decade as they succeeded in halving their 1990 benchmark U5MR.

**South and South-West Asia has some of the highest U5MRs in the ESCAP region**

<sup>30</sup> ESCAP, UNDP and ADB, *Millennium Development Goals: Progress in Asia and the Pacific 2006*, available at: <http://www.mdgasiapacific.org>.

<sup>31</sup> ESCAP, UNDP and ADB, *A Future within Reach: Reshaping Institutions in a Region of Disparities to Meet the Millennium Development Goals in Asia and the Pacific*, United Nations publication, Sales Number E.05.I.F.27; and UNICEF, *State of the World's Children 2006: Excluded and Invisible* (New York, UNICEF, 2005).

<sup>32</sup> UNICEF, *State of the World's Children 2006: Excluded and Invisible* (New York, UNICEF, 2005).

<sup>33</sup> The Islamic Republic of Iran, Maldives, Sri Lanka and Turkey.

In North and Central Asia, Tajikistan and Turkmenistan have U5MR in excess of 100 deaths/1,000 live births — higher than many countries in sub-Saharan Africa — whereas in Azerbaijan, Kazakhstan, Kyrgyzstan and Uzbekistan U5MRs range between 68 and 90 deaths. Many of these countries have made little progress, remained stagnant or regressed. For instance, in 2004, U5MR in Kazakhstan and Turkmenistan exceeded 1990 levels.<sup>34</sup>

The situation in South-East Asia with regard to MDG 4 is mixed. Brunei Darussalam, Indonesia, Malaysia, Philippines, Thailand and Viet Nam have made significant advances and U5MRs have fallen to between 20 and 38 deaths per 1,000 live births, and below 12 in the case of Brunei Darussalam and Malaysia. By contrast, U5MR in several other countries of this subregion remain extremely high. Cambodia, with 141 under-5 deaths per 1,000 live births, has the second highest U5MR in the region ranks 26th in the world. The rate of deaths among children under 5 has increased by over 20 per cent since 1990.<sup>35</sup> U5MRs in some other South-East Asian countries are also high: Myanmar 106, the Lao People's Democratic Republic 83, and Timor-Leste 80. The latter two countries have reduced U5MRs by almost half since 1990, but Myanmar is progressing too slowly towards its target.

Most Pacific island countries and territories have made significant progress. U5MR in Kiribati, Marshall Islands and Tuvalu ranges between 50 and 65 deaths but in Papua New Guinea it exceeds 93 deaths, showing only slow progress towards achieving this Goal.<sup>36</sup>

**U5MRs are higher in rural areas than in urban areas throughout the region**

Average national rates and trends obscure important intracountry disparities, especially in large and diverse countries such as China, India and Indonesia. In most developing nations, child mortality rates tend to be higher in rural than in urban areas for a number of reasons, including fewer health facilities, physical barriers to access, higher levels of poverty and lower levels of literacy in rural areas. In China, the overall gap between rural and urban areas seems to be closing,<sup>37</sup> but infant mortality has actually increased in some poor rural areas in recent times.<sup>38</sup> Under-5 mortality in such cities as Shanghai or Beijing is 7.5 times lower than in the poorest province of Guizhou – eight versus 60 deaths per 1,000 live births, respectively.<sup>39</sup> Similarly, in the Indian state of Kerala in 2001, IMR was three to four times lower than in other southern states.<sup>40</sup> Among hill tribe populations in northern Thailand, the IMR is 1.7 times higher than the national average.<sup>41</sup>

<sup>34</sup> UNICEF, *State of the World's Children 2006; Excluded and Invisible* (New York, UNICEF, 2005).

<sup>35</sup> ESCAP, UNDP and ADB, *A Future within Reach: Reshaping Institutions in a Region of Disparities to Meet the Millennium Development Goals in Asia and the Pacific* United Nations publication, Sales No. E.05.I.F.27.

<sup>36</sup> Ibid., p. 94.

<sup>37</sup> National Working Committee for Children and Women, *Country Report on the Child Development in China, 2003-2004*, available at: <http://www.china.org.cn/english/2005/May/130426.htm>, accessed on 24 October 2005.

<sup>38</sup> David Blumenthal and William Hsiao, "Privatization and its discontents: the evolving Chinese health care system", *New England Journal of Medicine* (2005), vol. 353, pp. 1165-1170.

<sup>39</sup> UNDP, *Human Development Report 2005: International Cooperation at a Crossroads: Aid, Trade and Security in an Unequal World* (New York, UNDP, 2005), p. 63.

<sup>40</sup> World Bank, *Karnataka. Development outcomes, challenges and reforms* (2004), available at: [http://www.worldbank.org/wbi/reducingpoverty/docs/India-FV-karnataka%20dev Outcomes.pdf](http://www.worldbank.org/wbi/reducingpoverty/docs/India-FV-karnataka%20dev%20Outcomes.pdf), accessed on 24 October 2005, p. 2.

<sup>41</sup> Asian Development Bank, *Health and Education Needs of Ethnic Minorities in the Greater Mekong Subregion* (Manila, ADB, 2001), p. 16.

**b. Target 6: Reduce the maternal mortality ratio by three quarters between 1990 and 2015**

Every year, half a million women die worldwide as a result of complications from pregnancy and childbirth. For every woman who dies from obstetric complications, about 20 more survive with some form of injury or disability and half of the global maternal deaths occur in the ESCAP region (table III.2).

**Table III.2. Maternal mortality ratios across the world**

Region	MMR <sup>a</sup>	No. of maternal deaths
South Asia, East Asia and the Pacific	361	242 000
Central European States, Commonwealth of Independent States and Baltic States <sup>b</sup>	64	3 400
Latin America and the Caribbean	190	22 000
Sub-Saharan Africa	940	240 000
Middle East and Northern Africa	220	21 000
Industrialized countries	13	1 300

Source: WHO, *Maternal Mortality in 2000* (Geneva, WHO, 2004).

<sup>a</sup> MMR - number of deaths from pregnancy-related causes of death per 100,000 live births.

<sup>b</sup> UNICEF-defined regions (which includes the ESCAP North and Central Asian subregion, Turkey, Eastern Europe and the Baltic States).

Of the 42 ESCAP member countries for which data on MMR is available, mortality rates have risen in 22 since 1990, while 6 others are progressing too slowly to meet their target by 2015.<sup>42</sup>

In both absolute and relative terms, maternal mortality ratios are the highest in South and South-West Asia. Afghanistan has the highest MMR in the region and the second highest in the world, with close to two in every 100 mothers dying from complications during pregnancy and delivery.<sup>43</sup> MMRs in Nepal (740 deaths per 100,000 live births), India (540) and Pakistan (500), Bhutan (420) and Bangladesh (380) are also among the highest in both the Asia-Pacific region and the world.

**South and South-West Asia has the highest maternal mortality ratios in the region**

As with other targets under the Millennium Development Goals, the situation in South-East Asia with regard to MDG 5 is quite disparate. Brunei Darussalam, Malaysia and Thailand have reduced MMRs to levels between 37 and 44 deaths

<sup>42</sup> WHO, *Maternal Mortality in 2000: Estimates developed by WHO, UNICEF and UNFPA* (Geneva, WHO, 2004), p. 34.

<sup>43</sup> Ibid.

per 100,000 live births. In Cambodia, however, the rate is 450 deaths per 100,000 live births, while in Timor-Leste and the Lao People's Democratic Republic it is over 650 deaths per 100,000 live births. In North and Central Asia, only Georgia, Turkmenistan and Uzbekistan have succeeded in lowering MMRs below 32 deaths per 100,000 live births. In Kyrgyzstan and Tajikistan MMRs exceed 100 deaths per 100,000 live births and in Kazakhstan MMR exceeds 200. MMRs in East and North-East Asia are lower than in other subregions and only Mongolia recorded over 100 deaths per 100,000 live births. In the Pacific subregion, the situation is also mixed. The highest MMRs have been reported in Papua New Guinea with 300 deaths and Samoa, Solomon Islands and Vanuatu with 130 deaths per 100,000 live births.<sup>44</sup>

### c. Target 7: Halt and start to reverse the spread of HIV/AIDS by 2015

**Low prevalence levels mask the full significance of the absolute numbers**

Most countries in Asia and the Pacific are in the early stage of the epidemic with relatively low national levels of HIV prevalence. Only Cambodia (1.6 per cent), Myanmar (1.3 per cent), Papua New Guinea (1.8 per cent), Thailand (1.4 per cent) and the Russian Federation (1.1) had adult (15-49 years old) prevalence rates of over 1 per cent in 2005.<sup>45</sup> However, these low prevalence levels mask the full significance of the absolute numbers. The latest estimates show that over 9 million people in the ESCAP region were living with HIV/AIDS in 2005 and the regional share of the global epidemic is likely to keep growing. India, for example, with an adult prevalence rate of 0.9 per cent, now accounts for two thirds of HIV and AIDS cases in the whole of Asia, and has more people living with HIV than any other country in the world. An estimated 5.7 million Indians were infected by the end of 2005, overtaking the estimated 5.5 million cases in South Africa.<sup>46</sup>

The region as a whole is off track as prevalence in the average Asian country rose from 0.39 in 2001 to 0.45 in 2003.<sup>47</sup> If prevention and care programmes are maintained at current levels, it is estimated that the number of people living with HIV and AIDS in the region could reach 18 million people by 2010.<sup>48</sup>

The highest prevalence at the subregional level in 2004 was in the Pacific and in South and South-West Asia, where prevalence rates have also increased the most since 1990 (figure III.2). However, in East and North-East Asia the epidemic is growing faster than anywhere else in the world – increasing 24 per cent in 2004. Moreover, national prevalence rates have increased in recent years in at least seven countries in the ESCAP region for which data are available (India, Kazakhstan, Myanmar, Nepal, Papua New Guinea, Russian Federation and Viet Nam).<sup>49</sup> By the end of 2005, the estimated number of people living with HIV and AIDS in the Russian Federation was 940,000, a 24 per cent increase from the 760,000 in 2003.<sup>50</sup>

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<sup>44</sup> Ibid.

<sup>45</sup> UNAIDS, *Report on the Global AIDS Epidemic* (Geneva, UNAIDS, 2006), p. 25.

<sup>46</sup> Ibid.

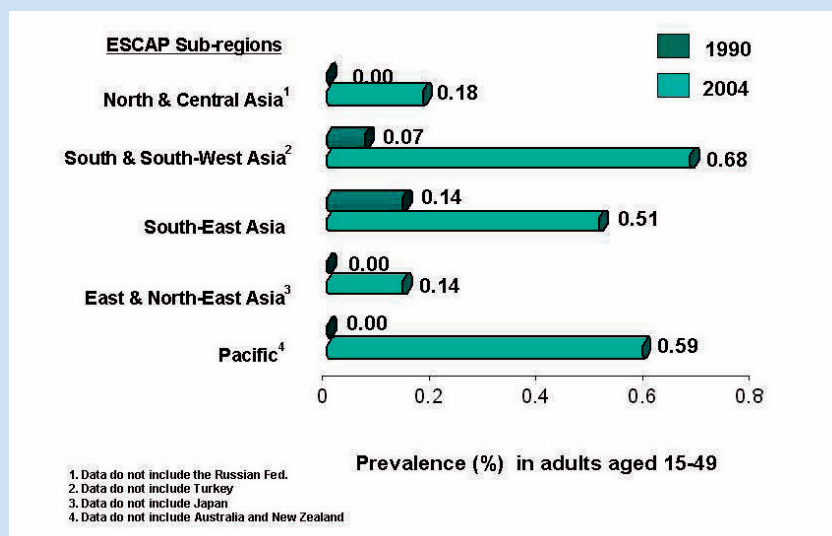
<sup>47</sup> ESCAP, UNDP and ADB, *A Future within Reach: Reshaping Institutions in a Region of Disparities to Meet the Millennium Development Goals in Asia and the Pacific* (United Nations publication, Sales No. E.05.II.F. 27).

<sup>48</sup> UNAIDS, *A Scaled-up Response to AIDS in Asia and the Pacific* (Bangkok, UNAIDS, 2005), p. 16.

<sup>49</sup> ESCAP, UNDP and ADB, *A Future within Reach: Reshaping Institutions in a Region of Disparities to meet the Millennium Development Goals in Asia and the Pacific* (United Nations publication, Sales No. E.05.II.F. 27).

<sup>50</sup> UNAIDS, *Report on the Global AIDS Epidemic* (Geneva, UNAIDS, 2006), p. 25.

**Figure III.2. HIV prevalence in the ESCAP region among adults aged 15-49 (Percentage)**



Source: United Nations, The Millennium Development Goals Report (New York, United Nations, 2005).

As with other health indicators, low national HIV prevalence rates can conceal higher rates of infection at the subnational levels. In the Russian Federation, 60 per cent of all infections are concentrated in just 10 of the country's 89 regions.<sup>51</sup> In some districts of India, infection rates are estimated to have reached or exceeded 5 per cent, compared with the national average of 0.9 per cent.<sup>52</sup> In some states in the south, west and north-east of India, prevalence among pregnant women exceeds 1 per cent whereas in the northern states, such as Uttar Pradesh and Bihar, it is still very low.<sup>53</sup> In China, the highest number of HIV infections has been reported in Yunnan and Henan provinces and in Guangxi autonomous region in the south and west. Significant intracountry disparities have been also reported in Cambodia and Thailand.

**Low national HIV prevalence rates often mask higher rates of subnational infection**

**d. Target 8: Halt and reverse the incidence of malaria and other major diseases by 2015**

Malaria remains entrenched in rural areas of the Pacific, South Asia and South-East Asia. The ESCAP region reported over 4 million cases of malaria in 2003, about 45 per cent of which occurred in India alone. Myanmar and Afghanistan reported close to 700,000 and 600,000 cases respectively. Prevalence rates are particularly high in Solomon Islands, Vanuatu and Timor-Leste (table III.3).

<sup>51</sup> UNAIDS, *AIDS Epidemic Update, December 2004* (Geneva, UNAIDS, 2004) (UNAIDS/04.45E), p. 47.

<sup>52</sup> UNAIDS, *A Scaled-up Response to AIDS in Asia and the Pacific* (Bangkok, UNAIDS, 2005), p. 9.

<sup>53</sup> UNAIDS, *AIDS Epidemic Update, December 2005* (Geneva, UNAIDS, 2005), p. 31.

**Table III.3. Reported malaria cases and deaths in selected Asian and Pacific countries**

	Number of cases	Rate (per 1 000)	Number of deaths
<b>North and Central Asia</b>			
Kyrgyzstan	5 428	0.87	0
<b>South and South-West Asia</b>			
Afghanistan	591 441	24.75	n/a
Bhutan	3 806	1.69	15
India	1 781 336	1.67	990
Pakistan	122 560	0.80	29
Sri Lanka	10 510	0.55	2
<b>South-East Asia</b>			
Cambodia	71 258	5.04	492
Indonesia	220 073	1.01	197
Lao People's Democratic Republic	18 894	3.34	187
Myanmar	716 100	14.47	2476
Philippines	14 644	0.55	n/a
Thailand	35 076	0.56	325
Timor-Leste	31 819	40.89	8
<b>East and North-East Asia</b>			
Democratic People's Republic of Korea	16 538	0.73	0
<b>Pacific</b>			
Papua New Guinea	17 226	12.30	537
Solomon Islands	90 606	189.94	71
Vanuatu	15 240	71.90	0

Source: WHO, *World Malaria Report 2005* (Geneva, WHO, 2005).

Note: Only countries with more than 0.5 cases per 1,000 are included.

The real malaria burden of developing countries worldwide may be masked by a number of factors. These include weak surveillance and death registration systems and symptoms that overlap with those of other diseases.<sup>54</sup> Throughout the region, prevention programmes have succeeded in reducing incidence rates of malaria, in many cases drastically. In Sri Lanka, rates have declined from 23.5 cases/1,000 people in 1991 to only 0.6 cases/1,000 in 2003. However, rates have recently begun rising.<sup>55</sup>

<sup>54</sup> WHO, *World Health Report 2004: Changing history* (Geneva, WHO, 2004).

<sup>55</sup> WHO, *World Malaria Report 2005* (Geneva, WHO and UNICEF Roll Back Malaria Partnership, 2005), p. 277.

Anti-malarial drugs are increasingly becoming ineffective in many areas of the Asia-Pacific region. This is because of the intensive use of insecticides and malaria drugs, which has led to the appearance of resistant forms in both vectors and parasites. South-East Asia has the highest levels of drug and insecticide resistance in the world, while median value resistance to some drugs – and even combinations of drugs – exceeds 40 per cent in many countries.<sup>56</sup>

**South-East Asia has the highest levels of drug and insecticide resistance in the world**

The sheer scale of the challenge that tuberculosis presents to Asian and Pacific countries is not only daunting but also complicated by the spread of HIV/AIDS. The ESCAP region bears the largest share of the global burden of tuberculosis in absolute numbers. Of the 22 countries with the highest number of new cases in 2004, 12 were in the ESCAP region (table III.4). India and China accounted for 20.5 and 14.9 per cent, respectively, of all new cases reported worldwide in 2004. China, India and Indonesia accounted for nearly half (46.6 per cent) of all deaths among HIV-negative tuberculosis patients in 2003.<sup>57</sup>

**Table III.4. Countries with a high burden of tuberculosis**

Country	Incidence		Prevalence	Mortality
	Number (1 000s)	Rate per 100 000	Per 100 000	Per 100 000
<b>1. India</b>	<b>1 824</b>	<b>168</b>	<b>312</b>	<b>30</b>
<b>2. China</b>	<b>1 325</b>	<b>101</b>	<b>221</b>	<b>17</b>
<b>3. Indonesia</b>	<b>539</b>	<b>245</b>	<b>275</b>	<b>46</b>
4. Nigeria	374	290	531	82
5. South Africa	339	718	670	135
<b>6. Bangladesh</b>	<b>319</b>	<b>229</b>	<b>435</b>	<b>51</b>
<b>7. Pakistan</b>	<b>281</b>	<b>181</b>	<b>329</b>	<b>40</b>
8. Ethiopia	267	353	533	79
<b>9. Philippines</b>	<b>239</b>	<b>293</b>	<b>463</b>	<b>48</b>
10. Kenya	207	619	888	133
11. Democratic Republic of the Congo	204	366	551	79
<b>12. Russian Federation</b>	<b>166</b>	<b>115</b>	<b>160</b>	<b>21</b>
<b>13. Viet Nam</b>	<b>147</b>	<b>176</b>	<b>232</b>	<b>22</b>
14. United Republic of Tanzania	131	347	479	78
15. Uganda	112	402	646	92
16. Brazil	110	60	77	7.8
<b>17. Afghanistan</b>	<b>95</b>	<b>333</b>	<b>661</b>	<b>92</b>
<b>18. Thailand</b>	<b>91</b>	<b>142</b>	<b>208</b>	<b>19</b>
19. Mozambique	89	460	635	129
20. Zimbabwe	87	674	673	151
<b>21. Myanmar</b>	<b>85</b>	<b>171</b>	<b>180</b>	<b>21</b>
<b>22. Cambodia</b>	<b>70</b>	<b>510</b>	<b>709</b>	<b>94</b>

Source: WHO, *Global Tuberculosis Control: Surveillance, Planning and Financing* (Geneva, WHO, 2006).

Note: ESCAP member countries in bold.

<sup>56</sup> Ibid.

<sup>57</sup> WHO, *Global Tuberculosis Control: Surveillance, Planning, Financing* (Geneva, WHO, 2006) (WHO/HTM/TB/2006.362).



**The region has made progress in reducing tuberculosis prevalence and mortality rates during the last decade**

New cases detected in the region rose from 4.9 to 5.5 million between 1990 and 2004.<sup>58</sup> Increasing detection is in part due to improvements in the coverage of populations by directly observed treatment short course (DOTS) programmes in recent years. In India, DOTS coverage increased from 1.5 per cent of the population in 1995 to 84 per cent in 2004. At the same time, in many countries, the increasing incidence of tuberculosis is associated with the spread of HIV/AIDS. Worldwide, up to 40 per cent of all people living with HIV and AIDS contract tuberculosis, which is responsible for a third of all AIDS-related deaths. India, China and Indonesia registered 46.6 per cent of all deaths among HIV-negative tuberculosis patients in 2003.

The ESCAP region has made significant progress in reducing tuberculosis prevalence and mortality rates during the past decade. The number of people infected with tuberculosis in the ESCAP region declined from 12.8 million to 10.8 million between 1990 and 2003, and the number of deaths dropped from 1.1 to 1.0 million. More than 30 countries and territories in the ESCAP region – including the highest incidence countries (Cambodia and Timor-Leste) – have reduced prevalence by over 50 per cent from 1990 baseline levels. Only seven countries in the ESCAP region, all of them in the North and Central Asian subregion, have experienced rising prevalence for tuberculosis – increases from 36 up to 80 per cent since 1990.<sup>59</sup>

However, as with malaria, multidrug-resistant tuberculosis is also emerging in parts of the region. In some areas of Central Asia, multidrug-resistant tuberculosis is ten times more common than in the rest of the world. The prevalence of multidrug-resistant tuberculosis in some provinces in China, Kazakhstan, the Russian Federation and Uzbekistan ranges from 10 to 14 per cent.<sup>60</sup> Although new drugs have been developed for treating multidrug-resistant tuberculosis, they are not always effective and require longer periods of treatment that could be up to 100 times more expensive than traditional drug regimes.<sup>61</sup>

## **B. OBSTACLES AND CHALLENGES TO HEALTH SYSTEMS AND ACHIEVEMENT OF THE MILLENNIUM DEVELOPMENT GOALS**

**Performance on one MDG affects performance on all the others**

Progress towards achieving health-related Goals depends on factors both within and outside the health sector. Indeed, the approach of individuals to health, their ability to access health services and, ultimately, their health status depend on a wide range of socio-economic, environmental and international determinants. Problem tree analyses illustrate the links between the factors affecting health outcomes and how they interact – whether as root causes of the main problem or as contributing and intermediate factors, or as the direct causes for failure – to achieve health-related MDGs in the Asian and Pacific region.

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<sup>58</sup> Ibid.

<sup>59</sup> Ibid.

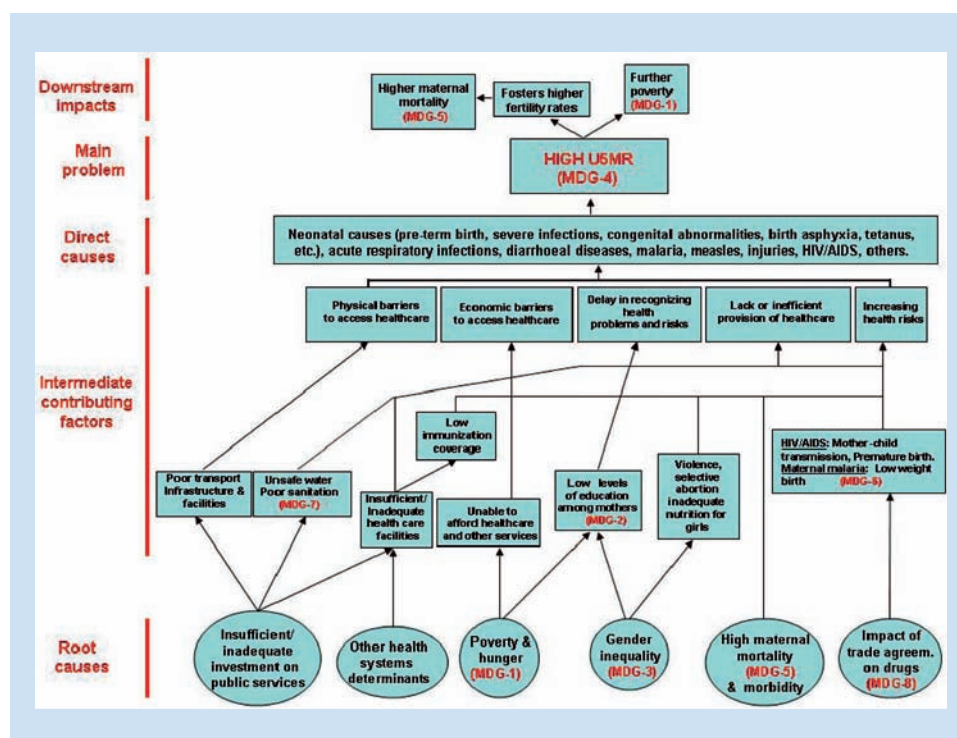
<sup>60</sup> WHO, *Anti-tuberculosis Drug Resistance in the World: Third Global Report* (Geneva, WHO, 2004) (WHO/HTM/TB/2004) 343, p. 16.

<sup>61</sup> George K. Simon, "Management issues in tuberculosis in the Asia-Pacific region", *Medical Progress*, October 2005, p. 489.



The problem-tree analysis on MDG 4 (figure III.5) shows that high under-5 mortality rates are immediately attributable to deficiencies within health systems which in turn result in infections and abnormalities contributing to deaths. These direct causes result from a number of intermediate factors, including physical, economic and social barriers to accessing health care, unsafe water and lack of sanitation, low levels of education, violence against women, inadequate nutrition for mothers and girls, lack of access to treatment for HIV/AIDS and poor transport facilities. These in turn could be attributed to such root causes as poverty, inadequate investment in health, lack of gender equality, high maternal mortality and lack of access to essential drugs. Most of these factors are covered by specific MDGs or targets under other Goals, illustrating the linkages between the Goals and how progress, or lack of it, on one Goal affects the achievement of others.

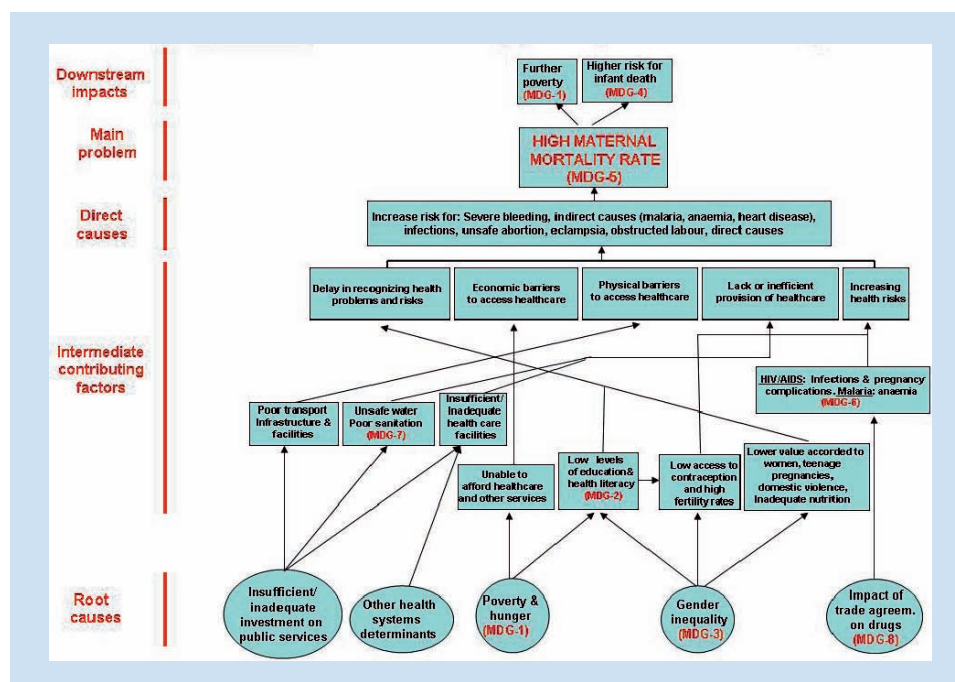
Figure III.3. MDG 4 problem tree analysis



Similarly, the problem tree analysis of maternal mortality (MDG 5) (figure III.4) indicates that physical lack of facilities, their inaccessibility and/or the shortage of experienced professionals are key contributing factors. Even when good quality maternal care services are available, however, utilization may be low because of financial constraints or physical inaccessibility. Lower demand for women's health services could also be due to poor levels of health literacy or discriminatory practices within the household. In turn, all the intermediate factors highlighted in the figure below are impacted by root causes, such as poverty, inadequate investment in health, lack of gender equality, high maternal mortality and lack of access to essential drugs, again highlighting the interlinkages between MDGs. It also

illustrates the need to address the broader determinants of health, as well as specific deficiencies in health systems to achieve the health-related MDGs.

**Figure III.4. MDG 5 problem tree analysis**



Analysing the root obstacles in the case of MDG 6 is even more complex given the wide range of health-system and non-health-system determinants involved. HIV/AIDS imposes severe challenges on health systems as a wide range of interventions need to be delivered continuously and at multiple levels. Although testing procedures have been simplified, scaling up voluntary counselling and testing requires training counsellors to attend to the emotional needs of people living with HIV and AIDS, educate households and communities where such people live and to promote awareness and eradicate discrimination. Expanding anti-retroviral treatment similarly requires not only availability of anti-retroviral drugs, but also the existence of appropriate infrastructure and human resource capacity for ensuring a timely and uninterrupted supply of drugs, as well as diagnostic and monitoring services. A number of factors play an important role in hindering progress, such as stigma and discrimination, poverty, lack of gender equality and lack of access to drugs due to prevalent trade regimes.

Countries thus face three categories of obstacle to progress towards the health-related MDGs:

- (a) Obstacles within health systems;
- (b) Obstacles related to the social, economic and environmental determinants of health;
- (c) Obstacles related to trade and economic factors.

## 1. OBSTACLES WITHIN HEALTH SYSTEMS

At the point of delivery in health systems, constraints in the availability and/or quality of health services can occur at three different levels:

### a. Deficiencies in physical infrastructure

Health facilities and/or their physical resources may be lacking or too few or may operate under unhygienic or unsafe conditions. The unavailability or inaccessibility of emergency obstetric care and antenatal care facilities in many rural areas are major contributors to the slow progress towards Goals 4 and 5 in many countries of the region. This highlights the importance of having in place smooth functioning emergency obstetric care and antenatal care facilities. The shortage of emergency obstetric care is especially acute in rural and remote areas. Antenatal care facilities not only help to identify high-risk pregnancies and advise women on how to deal with complications, but also offers an entry point for other curative, preventive and promotive health-care interventions (e.g. family planning, voluntary counselling and testing for HIV/AIDS, diagnosis and treatment of malaria, tuberculosis, etc.). However, in Bangladesh, Cambodia, the Lao People's Democratic Republic and Pakistan, more than half of all women do not visit antenatal care clinics during their pregnancy and only between 9 per cent and 29 per cent have the recommended minimum of four antenatal care visits.<sup>62</sup> When emergency obstetric care is unavailable, complications arising from unsafe abortions are a major cause of maternal mortality. Over half of all unsafe abortions worldwide take place in the Asia-Pacific region - 10.5 million per year, or one unsafe abortion for every seven live births.<sup>63</sup>

Clinics and hospitals can be overcrowded with patients having to wait for long periods for diagnosis and treatment. In some countries, the availability of hospital beds is low. In Afghanistan, Bangladesh and Nepal, the number of hospital beds per 10,000 people is below five, compared with averages of 17 and 34 in the WHO Southeast Asia and Western Pacific regions, respectively, or 80 in Western Europe.<sup>64</sup> In some countries, emergency obstetric care is available but poor intra-partum and post-natal practices result in increased risk of neonatal infection for babies born in health facilities. Neonatal infection rates in hospitals are up to 20 times higher in poor areas of developing countries than in developed countries.<sup>65</sup>

Health facilities may also be poorly equipped. Even though the average cost of smear examinations for tuberculosis is only \$0.36, the lack of microscopes is a serious impediment in the diagnosis of this disease in many developing countries.<sup>66</sup> In some instances, even in comparatively well-equipped urban health centres, the most basic equipment is outdated or unusable.

**Shortages of clinics and equipment are obstacles to progress towards achieving the MDGs**

<sup>62</sup> WHO, *World Health Report 2005: Making Every Mother and Child Count* (Geneva, WHO, 2005), vol. 43, pp. 212-219.

<sup>63</sup> E. Ahman and I. Shah, "Unsafe abortion: worldwide estimates for 2000", *Reproductive Health Matters* (2002), vol. 10, pp. 13-17.

<sup>64</sup> WHO, *World Health Statistics 2005* (Geneva, WHO, 2005) pp. 45-53; World Bank, 2005 *World Development Indicators* (Washington D.C., World Bank, 2005).

<sup>65</sup> Anita Zaidi, "Hospital-acquired neonatal infections in developing countries", *Lancet*, 26 March 2005, pp. 1175-1188.

<sup>66</sup> WHO, *Fighting TB: Forging Ahead. Overview of the Stop TB special project, 2002*, p. 26.

**The number of health workers in the Asia-Pacific region is disproportionately low compared with the population**

## **b. Deficiencies in human resources**

The region has 60 per cent of the world's population but only 30 per cent of the global stock of health workers, an average of 20 per 10,000 people compared with 110 per 1,000 people in North America and Europe.<sup>67</sup> Afghanistan, Bangladesh, Bhutan, Indonesia and Papua New Guinea have the lowest density of health professionals in the region, with only four to six health workers per 10,000 people, half the average in sub-Saharan Africa.<sup>68</sup>

The region also has one of the world's lowest rates of births attended by skilled health personnel: only 37 per cent in the South and South-West Asian subregion; in Afghanistan, Bangladesh and Nepal, less than 14 per cent of births are attended by skilled personnel.<sup>69</sup> In other instances, health providers are available but because of negligence, incompetence or inadequate training, patients are misdiagnosed or prescribed the wrong treatment. This situation could be compounded by corrupt and illegal practices among health professionals.

Deficiencies in human capacity are especially acute with regard to HIV/AIDS, non-communicable diseases and mental health. In the case of HIV/AIDS, many countries in the region suffer a severe shortfall of health professionals with appropriate levels of training in treatment regimes, monitoring procedures, drug resistance, etc. There are 11,250 people living with HIV and AIDS for every HIV-trained doctor in Viet Nam and 9,010 in India. Even in Thailand, which has one of the most comprehensive and successful HIV/AIDS programmes in the developing world, there are 6,700 HIV-positive people for every trained doctor. This compares to 24 per doctor in Japan, 100 in Taiwan Province of China and 375 in Singapore.<sup>70</sup>

## **3. DEFICIENCIES IN ACCESS TO ESSENTIAL AND RELIABLE MEDICINES AND VACCINES**

An estimated one third of the world's population does not have access to essential medicines that could save or prolong their lives. Domestic structural problems, such as the low capacity of many health systems, poor quality controls for drugs and vaccines or a lack thereof, and/or bottlenecks in the distribution and dispensing of medicines, limit access to effective drugs.

Many children in the Asia-Pacific region still suffer from diseases such as polio, measles and pertussis, for which there are effective vaccines. Three out of the six countries in the world where polio remains endemic are in the ESCAP region.<sup>71</sup> Measles remains relatively common in parts of the WHO Western Pacific region,

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<sup>67</sup> World Bank, 2005 *World Development Indicators* (Washington D.C., World Bank, 2005), table 2.14.

<sup>68</sup> Ibid.

<sup>69</sup> WHO, *World Health Report 2005: Making Every Mother and Child Count* (Geneva, WHO, 2005), pp. 212-219.

<sup>70</sup> American Foundation for AIDS. *TREAT ASIA Special Report: Expanded availability of HIV/AIDS drugs in Asia creates urgent need for trained doctors* (AmFar, 2004), available at: <http://web.amfar.org/treatment/news/TADoc7.pdf>, accessed on 14 September 2004.

<sup>71</sup> UNICEF, *Eradicating polio*, available at: [http://www.unicef.org/immunization/index\\_polio.html](http://www.unicef.org/immunization/index_polio.html), accessed on 13 September 2005.

where there were about 1 million cases of measles in 2003, 30,000 of them fatal.<sup>72</sup> Moreover, the proportion of children vaccinated against measles declined by 14 per cent in East and North Asia and by 30 per cent in the Pacific between 1990 and 2003 – the only two subregions in the world where immunization coverage for this disease diminished.<sup>73</sup> In Afghanistan, Cambodia, Vanuatu and Papua New Guinea, less than 20 per cent of districts reached 80 per cent coverage for the diphtheria-tetanus-pertussis conjugate vaccine in 2003.<sup>74</sup>

#### 4. DEFICIENCIES IN PUBLIC SPENDING AND OTHER INVESTMENTS IN HEALTH

The gap between the resources needed to meet the health-related MDGs and the resources that have been made available remains daunting. Many countries in the region need to spend more on health, allocate resources more efficiently and ensure greater equity by delivering quality health-care services to all segments of society.

Progress towards achieving the MDGs will depend on substantially increasing the funds invested in health, while improving human resources and management. A country's capacity to generate more revenues for health is based largely on such matters as its economic structures, tax collection, internal and external debt and debt-servicing burden, as well as allocation of resources to different sectors. Governments and other stakeholders need to promote policy and institutional reforms and improve the effectiveness of resource allocation to ensure that health plans are financially sustainable.<sup>75</sup>

### C. THE ROLE OF SOCIAL AND ENVIRONMENTAL DETERMINANTS IN THE ACHIEVEMENT OF THE HEALTH-RELATED MILLENNIUM DEVELOPMENT GOALS

#### 1. POVERTY AND HUNGER

Poverty is a key determinant of health-seeking behaviour. The richest 20 per cent of the population in Bangladesh are three times more likely to seek medical attention than the poorest quintile.<sup>76</sup> Child and maternal mortality and the prevalence of diseases under MDG 6 are closely related to poverty.<sup>77</sup>

*Children of the poor  
are much more likely  
to die than children of  
the rich*

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<sup>72</sup> WHO, "Background information on measles", available at: ([http://www.wpro.who.int/media\\_centre/fact\\_sheets/fs\\_20050606.htm](http://www.wpro.who.int/media_centre/fact_sheets/fs_20050606.htm), accessed on 13 September 2005).

<sup>73</sup> UN, *The Millennium Development Goals Report 2005* (New York, United Nations, 2005), p. 20.

<sup>74</sup> WHO, *World Health Report 2005: Making Every Mother and Child Count* (Geneva, WHO, 2005), pp. 204-211.

<sup>75</sup> These issues will be covered more extensively in the subsequent chapters.

<sup>76</sup> Nilufar Ahmad, "Voices of the stakeholders in the health sector reform in Bangladesh", In Abdo S. Yazbeck and David H. Peters, eds., *Health policy research in South Asia: Building capacity for reform* (Washington D.C., World Bank, 2003), p. 398.

<sup>77</sup> Adam Wagstaff, "Poverty and health sector inequalities", *Bulletin of the World Health Organization* (Geneva, WHO, 2002), vol. 80, pp. 97-105.



Under-5 mortality among the poorest quintile households tends to be higher compared with the richest quintile: it is 2.8 times higher in India, 2.7 times higher in Philippines and Viet Nam and 3.7 times higher in Indonesia.<sup>78</sup> Maternal malnutrition, including sub-clinical micronutrient deficiencies, and high workloads during pregnancy increase the risks of complications during pregnancy and of underweight babies. Estimates of foetal growth retardation in South and South-West Asia range between 25 and 50 per cent of all pregnancies.<sup>79</sup> Low birth weight babies are in turn more vulnerable to problems in their physical and mental development and to developing certain non-communicable diseases (for example, hypertension, diabetes, and coronary artery disease) later in life, closing the cycle of poverty and ill health.

## 2. EDUCATION AND HEALTH LITERACY

**Girls' education is particularly important in addressing many of health disparities prevailing in the region**

Adequate and appropriate education is a prerequisite for achieving health literacy and provides a tool for the poor to break out of the cycle of hunger and poverty. The ESCAP region has made significant progress in increasing school enrolment and completion rates. Most countries in the region have primary enrolment rates of above 80 per cent. However, 13 countries, particularly in South and South-West Asia and North and Central Asia, reported that their progress towards MDG 2 had worsened since the 1990 benchmark levels.<sup>80</sup>

Adequate levels of health literacy are crucial to enabling people to make informed decisions regarding health risks and to gain a better understanding of health promotion measures that are essential to prevent diseases and improve health status. Girls' education is particularly important in addressing many of the health disparities prevailing in the region and, especially, to improvements in maternal and child health.

Poor education about the modes of transmission of HIV/AIDS increases vulnerability to infection and fuels discrimination against people living with HIV and AIDS. In a survey in Indonesia, 88 per cent of injecting drug users used non-sterile needles/syringes but less than one third felt they were at high risk of HIV infection.<sup>81</sup> Even in areas in Asia and the Pacific where malaria is endemic, and even when perceived by local people as a major health issue, correct knowledge about transmission, prevention and treatment is low, especially among the illiterate.<sup>82</sup>

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<sup>78</sup> WHO, *World Health Report 2004: Changing history* (Geneva, WHO, 2004), pp. 12-13. Samuel S. Lieberman, Joseph J. Capuno and Hong Van Minh. "Decentralizing health: lessons from Indonesia, the Philippines and Vietnam", in *East Asia Decentralizes. Making Local Government Work in East Asia* (Washington D.C., World Bank, 2005), p. 162.

<sup>79</sup> Zulfiqar A. Bhutta and others, "Maternal and child health: Is South Asia ready for change?" *British Medical Journal* (2004), vol. 328, pp. 816-819.

<sup>80</sup> ESCAP, UNDP and ADB, *A Future within Reach: Reshaping Institutions in a Region of Disparities to Meet the Millennium Development Goals in Asia and the Pacific* (United Nations publication, sales No. E.05.I.F.27).

<sup>81</sup> UNAIDS, *AIDS Epidemic Update. December 2004*, (Geneva, UNAIDS, 2004), p. 39.

<sup>82</sup> M. Uza and others. "Knowledge and behavior relating to malaria in malaria endemic villages of Khammouane Province, Lao PDR", *Southeast Asian Journal of Tropical Medicine and Public Health* (2002), vol. 33, pp. 246-54., 248; Kyawt-Kyawt, Swe and A. Pearson, "Knowledge, attitudes and practices with regard to malaria control in an endemic rural area of Myanmar", *Southeast Asian Journal of Tropical Medicine and Public Health* (March 2004), vol. 35, pp. 53-62.

Traditional efforts for improving health literacy among the population have often been limited to public campaigns and top-down messages. These efforts have contributed to improving public health and reducing many infectious diseases, but participatory health education programmes which engage and empower local communities are more likely to have an impact. Such approaches require the training of individuals or households, teachers and other community leaders on health education, risk prevention and health promotion.

### 3. GENDER INEQUALITY

Gender inequality is one of the major factors behind the lack of progress on many MDGs. In many societies, social and cultural norms accord lower status to women and lesser value to their lives. These norms influence the way societies, communities, families and women themselves respond to their health needs.

Discriminatory practices against females start even before birth. It is estimated that selective abortion of female fetuses and violence against and neglect of newborn girls account for a gap of 50 million women in South Asia. Discrimination against girls continues throughout their childhood and adolescence. In many households, girls do not enjoy equal access to food with their brothers and are less likely to be hospitalized for childhood illnesses, thus experiencing higher mortality rates.<sup>83</sup>

**Discrimination against women is a major obstacle to improving health and achieving the MDGs**

Achieving gender equity in education is pivotal to empowering women and providing them with access to information on health services. Indeed, this is one area where the ESCAP region has made significant progress. Most countries have already achieved gender equity targets for primary education, with very positive trends (even higher female ratios) for secondary and tertiary education also. Nevertheless, reducing disparities in education and gender requires significantly greater efforts in many countries of the region.<sup>84</sup>

The increasing availability and cultural acceptance of family planning has been instrumental in the reduction of fertility in the ESCAP region, from an average of five to seven births per woman in the early 1960s to half that figure in 2000, and in the subsequent reduction of child and maternal mortality rates. Nevertheless, fertility rates still exceed five live births per woman in several ESCAP member countries, namely Afghanistan, Bhutan, Cambodia, Maldives, Marshall Islands and Pakistan.<sup>85</sup> Of the countries in the region for which data on the use of modern methods of contraception are available, Afghanistan, Bhutan and Cambodia reported that the levels of contraception among married women was below 20 per cent.

**Empowering women is crucial in the battle against HIV/AIDS**

Women are playing a more important role in the region's HIV/AIDS pandemics. In the early stages, men represented the largest proportion of people living with HIV and AIDS, but the number of women infected with HIV has increased

<sup>83</sup> WHO, *Turning Promises into Progress: Attaining the Health MDGs in Asia and the Pacific* (Manila, WHO, Western Pacific Region Office, 2005), p.12.

<sup>84</sup> ESCAP, UNDP and ADB, *A Future within Reach: Reshaping Institutions in a Region of Disparities to Meet the Millennium Development Goals in Asia and the Pacific* (United Nations publication, sales No. E.05.I.F.27), p. 92.

<sup>85</sup> WHO, *World Health Report 2005: Making Every Mother and Child Count* (Geneva, WHO, 2005), pp. 174-181.

steadily and they now account for 46 per cent of all the people living with HIV and AIDS worldwide.<sup>86</sup> In South and South-East Asia, women represented 26 per cent of all adults living with HIV/AIDS in 2005, 18 per cent in East Asia and 55 per cent in the Pacific. The percentage of women had risen in all areas in the preceding two years but particularly in the Pacific subregion, where in 2003 women represented 44 per cent of adults living with HIV/AIDS.<sup>87</sup> Trends in the region also indicate that the pandemic is spreading among younger groups and that young women aged 15 to 24 have higher prevalence rates than men of the same age group. For many women in the region, sex within their marriage constitutes the main mode of infection, as they are infected by their husbands.<sup>88</sup>

Women are at higher risk of HIV infection partly because of biological susceptibility but also to due to social factors, including lack of skills and power to refuse sexual relations or to negotiate safer sex, to deal with domestic violence and inadequate information and access to services and information concerning sexually transmitted diseases (STDs).

#### 4. UNSAFE WATER, POOR SANITATION AND OTHER ENVIRONMENTAL PROBLEMS

**Close to two thirds of the 1.1 billion people worldwide who lack access to improved drinking water live in the ESCAP region**

Unsafe water and poor sanitation are major contributing factors to the burden of infectious diseases, especially among children. Although the Asia-Pacific region is well endowed with water resources, close to two thirds of the 1.1 billion people worldwide that lack access to improved drinking water live in the ESCAP region. In China alone, the number of people without access to improved drinking water is equal to the total number of people without access to safe drinking water in all of Africa. Developing countries in the Pacific subregion have the world's lowest level of coverage for improved drinking water: 52 per cent of the population compared with 58 per cent in sub-Saharan Africa.<sup>89</sup>

The number of people without coverage for improved sanitation services in Asia and the Pacific is also higher than in any other region of the world, despite the significant progress made during the last decade. Over half of the world's population without improved sanitation, about 1.5 billion people, live in China and India.<sup>90</sup> Of 27 countries in the world with less than a third of the population covered by improved sanitation, 7 are in the ESCAP region.

The availability of clean water is essential for washing and sanitation, but water could be a medium for waterborne pathogens. Water- and faeces-borne diseases are the second cause of child mortality after respiratory diseases. Diarrhoea is a major obstacle to achieving MDG 4, causing about a fifth of all deaths among children aged under-5 in the developing world.<sup>91</sup> Waterborne

<sup>86</sup> UNAIDS, *AIDS Epidemic Update. December 2005* (Geneva, UNAIDS, 2005).

<sup>87</sup> Ibid.

<sup>88</sup> UNAIDS, *A Scaled-up Response to AIDS in Asia and the Pacific* (Bangkok, UNAIDS, 2005).

<sup>89</sup> WHO and UNICEF, *Meeting the MDG Drinking Water and Sanitation Target: A Mid-term Assessment of Progress* (Geneva and New York, WHO and UNICEF, 2004), pp. 8-9.

<sup>90</sup> Ibid.

<sup>91</sup> Margaret Kosek, Caryn Bern and Richard L. Guerrant, "The global burden of diarrhoeal disease, as estimated from studies published between 1992 and 2000", *Bulletin of the World Health Organization* (Geneva, WHO, 2003), vol. 81, pp. 197-204.



bacterial infections account for up to half of the 750,000 people, mostly children, that die every year in the ESCAP region as a result of diarrhoeal diseases. According to a study in India, access to sanitation facilities could reduce neonatal, infant and under-5 mortality in urban slums by up to 50 per cent and the introduction of piped treated water could reduce mortality due to diarrhoea in all age groups by over 40 per cent within a 5-year period.<sup>92</sup>

Stagnant water is a breeding ground for vectors. Water can also be contaminated with hazardous chemicals (e.g. arsenic salts, fluoride, pesticides). Up to 200 million people in the ESCAP region are exposed to drinking water with high levels of arsenic. In Bangladesh, many districts have been affected by arsenic contamination of underground water reservoirs, exposing parts of the population to the risk of arsenic poisoning.<sup>93</sup> Contamination of water reservoirs with pesticides is also a widespread problem in many Asian and Pacific countries and has been linked to a higher incidence of cancer, birth defects and infertility.

**Chemical contamination of water sources in many Asian and Pacific countries is causing a higher incidence of cancer, birth defects and infertility**

In most developing countries of the region, access to improved water and sanitation services is far better in urban than in rural areas. Most countries in the region for which data are available have already achieved their targets, or are on track, with regard to providing enhanced services to urban areas. The urban-rural gap is being progressively closed, although coverage in rural areas tends to be 10-20 per cent lower – up to 40-50 per cent lower in Mongolia and Papua New Guinea. The coverage for improved sanitation has tended to be lower than for improved water supply, whereas the urban-rural gap has tended to be greater.<sup>94</sup>

Long-term exposure to indoor pollution, especially the exposure of women and their infants to such pollution, is responsible for high levels of prevalence of respiratory diseases and several chronic diseases (for example, chronic obstructive pulmonary disease, lung cancer and blindness). It kills 2 million people around the world every year, 28 per cent of them in India alone. Indoor pollution is also fuelling the spread of tuberculosis.<sup>95</sup>

**Indoor pollution is responsible for high levels of respiratory infections and chronic diseases**

Human-induced changes to the environment can also impact health. Deforestation and climate change will alter the geographical distribution of malaria and other vector-borne diseases by modifying the life cycle of both vectors and pathogens.<sup>96</sup> In Sri Lanka, outbreaks of Japanese encephalitis have been linked to irrigation projects that increased the mosquito populations. Air pollution, industrial waste and agricultural fertilizers and pesticides contaminate land and water resources, degrade the environment and represent significant health hazards for humans. Increased exposure to UV-B radiation resulting from the depletion of

<sup>92</sup> Shally Awasthi and Siddharth Agarwal, "Determinants of childhood mortality and morbidity in urban slums in India", *Indian Pediatrics* (2003), vol. 40, pp. 1145-1161.

<sup>93</sup> M.M. Khan and others, "Magnitude of arsenic toxicity in tube-well drinking water in Bangladesh and its adverse effects on human health including cancer: evidence from a review of the literature", *Asian Pacific Journal of Cancer Prevention* (2003), vol. 4, pp. 7-14.

<sup>94</sup> ESCAP, UNDP and ADB, *A Future within Reach: Reshaping Institutions in a Region of Disparities to Meet the Millennium Development Goals in Asia and the Pacific* (United Nations publication, Sales No. E.05.I.F.27), pp. 102-103.

<sup>95</sup> Vinod Mishra, Robert D. Retherford, and Kirk R. Smith, "Indoor air pollution: the quiet killer", *Asia Pacific Issues* (2002), vol. 63, pp. 1-7.

<sup>96</sup> R.W. Sutherst, "Global change and human vulnerability to vector-borne diseases", *Clinical Microbiology Review* (2004), vol. 17, pp. 136-173.

stratospheric ozone has also been linked to a higher incidence of malignant melanomas.<sup>97</sup>

## 5. MIGRATION

Migration is a critical factor in the spread of communicable diseases and an important determinant influencing progress towards MDGs. The role that mobile and migrant populations have in spreading HIV/AIDS is well documented. Human migration has also contributed to the spread of tuberculosis and the re-emergence of malaria in certain areas.<sup>98</sup>

As people move to new areas, they can be exposed to new diseases for which they have not developed an immune response. Migrants are often among the lowest income groups living and working in conditions that are considered as high risk for certain communicable and non-communicable diseases. In many receiving countries, migrants are excluded from public health services – in some cases even those who are legal. They face not only economic and legal barriers but often also cultural and linguistic obstacles and are subject to discriminatory practices that could affect their health status.

## 6. SOCIAL EXCLUSION

**Linguistic, cultural and political barriers limit access to health services in many parts of the region**

Improvements in poverty and health indicators are not applied uniformly to all ethnic groups in some countries in the region. Minorities often confront linguistic, cultural and political barriers that impede their access to health services and information in addition to economic and/or geographic limitations. Lower levels of education and limited access to contraception, emergency obstetric care and immunization have contributed to the higher MMRs and IMRs among tribal populations in South Asia and to communities living in the highland areas of the Greater Mekong Subregion. Among tribal women in India, chronic malnutrition is one and a half times more frequent than in other categories of women, while the number of deliveries attended by skilled personnel is 12 times lower. As a result, both MMRs and U5MRs are higher among scheduled tribe groups than in the general population.<sup>99</sup> In Thailand, mild malnutrition among communities living in the hill areas is three times higher than the national average while IMR is 1.7 times higher. Diarrhoea, malaria, dengue fever and tuberculosis are major causes of mortality among ethnic minorities in the highlands of the Greater Mekong Subregion, and HIV/AIDS and substance abuse are also emerging as significant health problems.<sup>100</sup>

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<sup>97</sup> A. Haines and J.A. Patz, "Health effects and climate change", *Journal of the American Medical Association* (2004), vol. 291, pp. 99-103.

<sup>98</sup> Clare Waddington and Richard Black, "Migration and the Millennium Development Goals for Health", *Migration, Globalisation and Poverty Briefing*, 2004, Briefing Paper Number 1, available at: [http://www.migrationdrc.org/publications/briefing\\_papers/BP1.pdf](http://www.migrationdrc.org/publications/briefing_papers/BP1.pdf).

<sup>99</sup> P.N. Mari Bhat, "Levels and differentials in maternal mortality in rural India: New evidence from sisterhood data", National Council of Applied Economic Research (NCAER). *Working Paper Series* no 87 (New Delhi, NCAER, 2002); Milind Deogaonkar, Socio-economic inequality and its effect on healthcare delivery in India: Inequality and healthcare, *Electronic Journal of Sociology* (2004), vol. 8, No.1, available at: <http://www.sociology.org/content/vol8.1/deogaonkar.html?PHPSESSID=24783d214cd36e134893fe76658959f2>.

<sup>100</sup> ADB, *Health and Education Needs of Ethnic Minorities in the Greater Mekong Subregion* (Manila, ADB, 2001).

The systematic stigmatization and discrimination to which many social groups are subjected have significant impacts on their health status and their ability to access health and other public services. Intravenous drug users, sex workers and men who have sex with men were among the first population groups in the ESCAP region to be infected with HIV. In most societies in the region, the illegal nature of their source of livelihood, sexual identity and behaviour hinder their access to health information and services. Stigma and discrimination have a negative impact on prevention, care and treatment efforts among these groups.<sup>101</sup> A 2004 survey in 16 Asian and Pacific countries found that only a minority of the most-at-risk population benefit from prevention programmes.<sup>102</sup> Countries such as Australia and New Zealand have revised their laws concerning sex work and drug use and have created a more conducive environment for controlling HIV among sex workers and intravenous drug users and protecting public health.

A 2004 study of India, Indonesia, Philippines and Thailand found that discriminatory practices against people living with HIV and AIDS still prevail at all levels.<sup>103</sup> Interestingly, in all four countries the greatest levels of discrimination took place within the health sector, where up to 54 per cent of respondents reported experiencing some type of discrimination.

People with mental and physical disabilities are also often subject to discrimination and rejection, including by their own families, becoming homeless or being abandoned in institutions. In the ESCAP region, there are an estimated 400 million people with disabilities, the vast majority of whom are poor or socially excluded and sometimes face higher barriers to accessing public services, including health care, than non-disabled people.<sup>104</sup>

## 7. IMPACT OF BROADER DETERMINANTS RELATED TO TRADE POLICIES

Trade agreements such as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)<sup>105</sup> can have a significant impact on the cost of essential drugs and access to affordable medicines for the poor. Patents, import tariffs and other taxes on medicines account for a significant proportion of the final price of medicines – up to half in some countries in the region.<sup>106</sup> Some of these taxes and tariffs protect the creation and development of domestic generic pharmaceutical industries but are also applied to locally produced drugs. Further, increased cross-border trade in health services through the migration of health-care

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<sup>101</sup> UNAIDS, *HIV-related Stigma, Discrimination and Human Rights Violations: Case Studies of Successful Programmes* (Geneva, UNAIDS, 2005).

<sup>102</sup> UNAIDS, *A scaled-up response to AIDS in Asia and the Pacific* (Bangkok, UNAIDS, 2005).

<sup>103</sup> Ibid.

<sup>104</sup> ESCAP, "Health and Development: the development determinants of health", Subcommittee on Health and Development, first session, Bangkok, 1-3 December 2004 (E/ESCAP/SHD/1).

<sup>105</sup> See *Legal Instruments Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, done at Marrakesh on 15 April 1994* (GATT Secretariat Publication, Sales No. GATT/1994-7).

<sup>106</sup> International Policy Network, *Incentivising research and development for the diseases of poverty* (London, IPN, 2005), available at: [http://www.who.int/intellectualproperty/submissions/Incentivising\\_RD.pdf](http://www.who.int/intellectualproperty/submissions/Incentivising_RD.pdf), accessed on 13 September 2005.

personnel and movement of patients across borders may create challenges for the health systems in the region. These are analysed further in chapter VI, which focuses on trade and related linkages.

## D. DEMOGRAPHIC AND EPIDEMIOLOGICAL CHALLENGES

Health systems in the Asia-Pacific region need to gear up to tackle new and emerging challenges. These challenges relate to the rapid ageing of populations and epidemiological changes that give rise to non-communicable diseases. This requires increased investment in programmes for prevention as well as treatment.

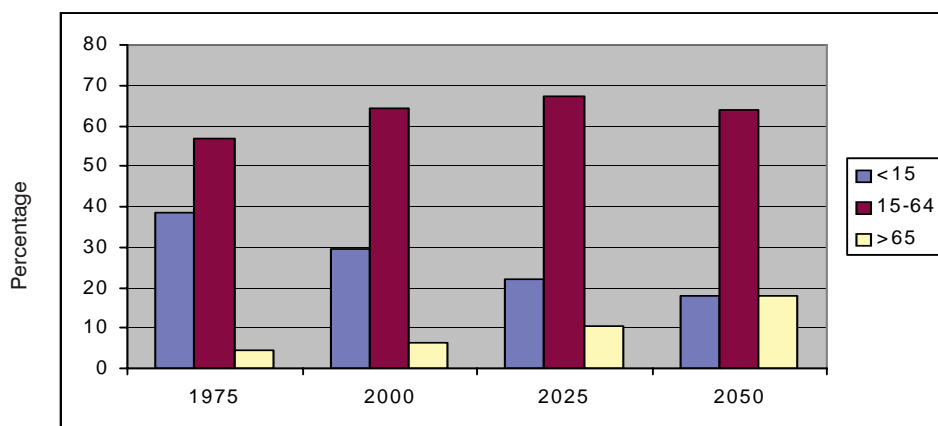
### 1. DEMOGRAPHIC CHANGES

The number of older persons (over 65 years of age) in the ESCAP region nearly quadrupled over the last half a century: from 64 million in 1950 to 234 million in 2000. This number is projected to reach 918 million by 2050, a nearly four-fold increase. Declining mortality among the elderly has resulted in the size of this population growing at over 2 per cent per year during the period 1950-1975. That growth rate is expected to peak at 3 per cent annually during the period 2000-2025. Thus, ageing, which has been taking place at a modest pace until now, will accelerate in coming decades.

The percentage of older persons in the ESCAP region underlines this trend. The percentage of older persons increased from 4.2 per cent of the region's total population in 1950 to 6.2 per cent in 2000, and are expected to increase to 17.9 per cent of the population in 2050.<sup>107</sup> Figure III.5 illustrates the changing age structure in the ESCAP region over the next 50 years and the increase in the numbers of persons over 65 years of age.

*The pace of ageing of populations in Asian and Pacific countries will accelerate in the coming decades*

**Figure III.5. Projected demographic changes in the ESCAP region, 1975 - 2050 (Percentage)**



Source: Based on United Nations, *World Population Prospects: The 2004 Revision, Volume II: Sex and Age Distribution of the World Population* (New York, United Nations, 2005).

<sup>107</sup> United Nations, *World Population Prospects: The 2004 Revision, Volume II: Sex and Age Distribution of the World Population* (United Nations, New York, 2005).

East and North-East Asia, where the demographic transition has been most rapid, will experience equally rapid ageing of the population, with older persons increasing from a modest 8 per cent of the total population in 2000 to 25 per cent by 2050. Significant, albeit slower, acceleration will occur in the ageing process in South-East Asia during the period from 2025 to 2050. South and South-West Asia, where the population is still young, will experience slower ageing of the population. The process will also be slower in the Pacific and in North and Central Asia, owing to migration to Australia and New Zealand from the Pacific, and the slower pace of the demographic transition in both subregions.

Population ageing in most Asian and Pacific countries will take place at a more rapid pace than in developed countries, such as those in Europe, which means that the countries in the ESCAP region will have less time to address the consequences. This demographic change has a profound impact on the disease burden in the region, and consequently on the nature of demands on the health systems. Older persons are more likely to suffer from chronic conditions, health-care costs tend to increase when people age and there are socio-economic implications regarding who cares for older persons. These are factors which need to be considered by Governments when they plan future investments to meet the demands placed on their health systems.

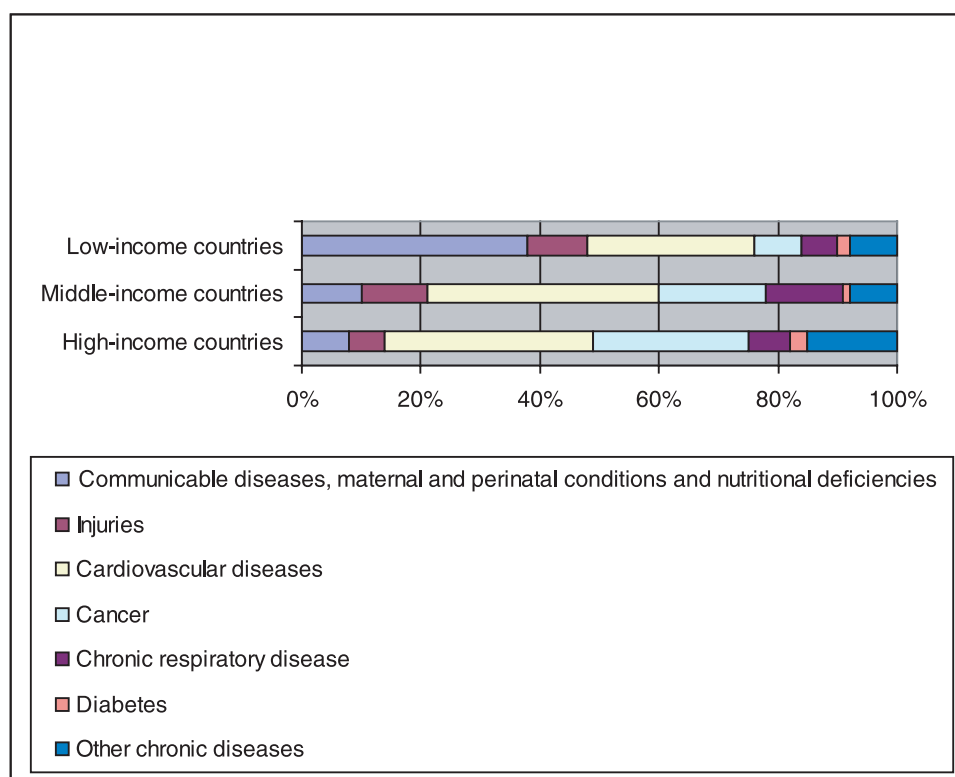
## 2. EPIDEMIOLOGICAL CHANGE

Developing and least developed countries in the region have traditionally faced a higher burden of communicable diseases, such as malaria, tuberculosis, waterborne diseases and other infectious diseases. Hitherto, it was a commonly held belief that so-called "lifestyle diseases" such as diabetes and cardiovascular diseases and other chronic diseases such as cancer, were to be found more in developed countries. However, due to the increase in the numbers of older persons, as well as changing lifestyles, many countries in the region now face a high prevalence of chronic diseases and injuries. This is, of course, in addition to the persisting burden of communicable diseases.

Analysis of the projected causes of death in the low-, middle- and high-income countries of the ESCAP region serves to highlight the point. In its high-income countries, chronic diseases account for 86 per cent of total mortality (see figure III.5). It is estimated that that deaths due to chronic diseases in such countries would increase by 11 per cent up through 2015, amounting to 48 million deaths over the period, of which 62 per cent are projected to be due to diabetes.

*Lifestyle changes are altering the disease profile of Asian and Pacific countries*

**Figure III.6. Projected mortality by cause, all ages, in high-, middle-and low-income countries in the ESCAP region, 2005**



Source: WHO, *The Impact of Chronic Disease in High Income Countries (ESCAP member countries only): Fact Sheet* (Geneva, WHO, 2005) unpublished.

In the region's middle-income countries, chronic diseases account for 79 per cent of all deaths and these are estimated to increase by 14 per cent up until 2015. This would represent 119 million deaths over the period, of which 47 per cent are projected to be a result of diabetes. In low-income ESCAP member countries, chronic diseases account for 52 per cent of all deaths, however, this is slated to increase by 21 per cent up until 2015. In addition, deaths from infectious diseases, maternal and perinatal conditions and nutritional deficiencies are expected to increase 15 per cent. In absolute terms, 102 million people are to die from chronic diseases, in the 10 years to 2015 in the low-income ESCAP member countries, 38 per cent of them from diabetes.

These trends have wide-ranging implications for health systems in the ESCAP region. It is no longer enough for health systems in low-income countries to deliver a basic minimum package targeting communicable diseases only. Chronic diseases affect the poor more than the affluent, and the health-care needs of the poorest should therefore include treatment of both chronic and communicable diseases.

## E. CONCLUSIONS AND RECOMMENDATIONS

Regional MDG scorecards mask the drastically uneven progress across countries. Regardless of whether they are judged by the level and trends for specific targets or assessed through combined measures of MDG status and progress. Many least developed countries and countries in the Pacific and Central Asia are likely to miss – or regress on – a significant range of MDGs, including the targets on child health, HIV and tuberculosis.

The gaps within countries can be as stark as the gaps between countries. Behind the national averages is the fact that, in many countries, including some experiencing spectacular economic development, such as China and India, the gains of progress are not shared by all. Against the fundamental principles of MDGs, which are rooted in basic human rights and equal opportunities, the most vulnerable and disadvantaged are often left behind.

Despite the difficulty of assessing whether countries are making enough of an effort to achieve their goals, the point of this chapter is clear. Much remains to be done if the region is to deliver the MDG promises to its poorest populations and achieve sustainable development.

### 1. COMPREHENSIVE HEALTH SYSTEMS APPROACH FOR ACHIEVING MDGS AND BEYOND

The concept of comprehensive strengthening of health systems with an emphasis on primary health is not new and is part of the Declaration of Alma-Ata.<sup>108</sup> However, some public health practitioners and organizations prefer to focus on achieving measurable effects through the selective delivery of primary health care services concentrating on a limited number of cost-effective interventions. This has resulted in a growing number of selective, disease-specific programmes launched in order to help countries reach the MDGs, especially countries with weak health systems. Examples of some of these initiatives are listed in table III.5.

*Disease-specific programmes offer short-term gains but can detract attention from the strengthening of health systems*

**Table III.5. Examples of global initiatives linked to the health-related Millennium Development Goals**

MDG	Initiative
Maternal health	Making Pregnancy Safer
Newborn and child health	Integrated Management of Childhood Illness (IMCI); Global Alliance for Vaccines and Immunization (GAVI); and Global Alliance for Improved Nutrition (GAIN)
HIV/AIDS	(WHO) 3 by 5 initiative; and GFATM <sup>a</sup>
Tuberculosis	Stop TB; and GFATM
Malaria	Roll back Malaria; and GFATM

<sup>a</sup> Global Fund to Fight AIDS, TB and Malaria

<sup>108</sup> WHO/UNICEF, *Report of the International Conference on Primary Health Care, Alma Ata, USSR, 6-12 September 1978*.



In addition, some countries in the region have initiated plans to work towards achieving the MDGs through disease-specific interventions rather than comprehensive strengthening of health systems. Proponents of the disease-specific approach feel that this helps to maintain the focus on a manageable part of the task and thus prevents spreading resources too thinly. This strategy can yield quicker returns than long-term systems-based interventions.

However, these vertical programmes may not have the intended impact or result in sustainable progress towards reaching the MDGs. Such parallel approaches may result in increased costs through duplication of activities, distortions through variable incentives offered for delivery of specific programmes, and disruptions to the delivery of services as health workers are drawn away to service disease-specific focused programmes.

There may be several causes for the slow progress towards achieving any of the MDGs and a disease-specific approach may not touch all of them, while a comprehensive systems approach may be more successful at tackling the root causes of failure. The implementation of multiple specific programmes also draws away health workers from regular health system activities, which may lead to further neglect of some important areas not covered by disease-specific programmes.<sup>109</sup> It is estimated that universal access to broad-based health services could meet 60-70 per cent of the MDG child mortality targets and 70-80 per cent of maternal mortality targets. However, there are also concerns that health systems in the region need to be strengthened to overcome a lack of systemic capacity and human resources before they would be able to absorb such an increase in funds.

**The ESCAP region needs to upgrade and build new infrastructure to deliver the vital interventions required to achieve the health-related MDGs**

## **2. MAIN ISSUES RELATED TO THE STRENGTHENING OF HEALTH SYSTEMS**

### **a. Building basic infrastructure to deliver health services, drugs, information and diagnostic tools**

Attention needs to be focused on upgrading and building new infrastructure to deliver the vital interventions required in order to achieve the health-related MDGs. It also requires the incorporation of appropriate technology relevant to the region for enhanced delivery of health care. Many countries in the region have made considerable progress in information technology and have the option of leveraging these strengths to improve the effectiveness and quality of health services.

### **b. Increasing investment and more efficient use of existing investments**

Increasing investments and enabling more efficient use of existing investment are essential in order to upgrade infrastructure and for more effective delivery of health interventions. The Commission for Macroeconomics and Health recommends that low- and middle-income countries mobilize domestic resources amounting to an additional 1 per cent of GNP for health by 2007 and an additional 2 per cent of GNP by 2015, relative to 2001 levels. Chapter V considers the issue in detail as well

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<sup>109</sup> Phyllida Travis and others, "Overcoming health systems constraints to achieving Millennium Development Goals", *The Lancet*, vol. 364, 4 September 2004.



as how domestic fund mobilization can be achieved through broad-based revenue sources, such as value-added, general and earmarked taxes.

**c. Providing affordable access to quality essential drugs**

Structural problems such as the low capacity of many health systems in the region, poor quality controls for drugs and vaccines or a lack thereof and/or bottlenecks in the distribution and dispensing of medicines are currently limiting access to effective drugs. The production and sale of counterfeit medicines has become widespread in some countries of the ESCAP region. Ensuring a supply of good quality essential drugs at affordable prices is important for achieving the MDGs and requires action within and outside health systems. Considering its importance, this aspect is analysed in greater depth in chapter VI, which deals with the broad determinants of health.

**d. Providing universal coverage of a basic level of health services**

Providing universal coverage of basic levels of health services on an equitable basis is the key to sustainable progress towards achieving the MDGs. Many countries in the region have to confront the problem of low spending on health. They must also address how increased spending is to be financed and how funding can be most effectively spent so as to ensure access to a minimum level of health care. The delivery of a basic minimum package of health services supported by sustainable financing mechanisms in a country-specific context is of paramount importance. Chapter IV elaborates on the progress made by countries in the region and the options that are available for providing universal coverage of health care.

*Universal health-care coverage is key to sustainable progress towards the health-related MDGs*

**e. Tackling the shortage of trained human resources**

The shortage of trained human resources is one of the main constraints to achieving the health-related MDGs and therefore needs urgent action and investment. Other issues, such as migration of health professionals from some countries, also need to be addressed. The issue involves attention to some of the broad determinants of health as they relate to trade in health services (see chapter VI for more details).

**f. Strengthening good governance for health**

Assuring careful and responsible management of the resources that promote the well-being and health of populations are crucial. Health ministries throughout the developing world are increasingly implementing reforms to make health systems more equitable and responsive. An increased emphasis on primary health care, priority setting in the allocation of resources, public accountability, and monitoring and evaluation are being introduced in the health-care reform packages of many countries.

**3. ADDRESSING THE SOCIAL DETERMINANTS OF HEALTH**

**a. Health and poverty reduction**

Health-related MDGs should be at the forefront of socio-economic development policies, including poverty reduction strategy papers. A total of 11

*Health is a pre-condition for economic development and poverty reduction*

countries in the ESCAP region have so far produced poverty reduction strategy papers, and most incorporate health among their priority actions to combat poverty. Nevertheless, health care should not just be seen as a service to mitigate the impact of poverty but rather as a precondition for economic development and poverty reduction. Governments should therefore make ministries of health key participants in the design and implementation of national development policies to ensure that health objectives are adequately represented in poverty reduction strategies.

#### **b. Health and education**

Improving child and maternal mortality rates or reducing the prevalence of diseases under MDG 6 will require increasing the levels of general education and, more specifically, health literacy. Education campaigns can raise awareness levels on a range of health issues, such as pregnancy complications, childhood diseases, HIV/AIDS, malaria prevention and the risks of substance abuse. Public campaigns also need to promote healthier lifestyles through improved personal hygiene, better diets and physical activity. Programmes promoting health and modification of risk behaviours are particularly effective when targeted at younger age groups and should therefore be integrated in school curricula. Those responsible for the design and implementation of educational campaigns should ensure that messages reach the poor and vulnerable groups using channels and communication strategies that are more accessible to them. Promotion of a "life-skills" approach to health risks, designed around the biological, emotional and social needs of adolescents, has proved to have a significant impact in modifying attitudes and behaviours.

#### **c. Health and gender**

Improving women's health requires a comprehensive response, including stronger advocacy and legislation to tackle the socio-cultural, legal and political barriers that prevent them from accessing health services and information on an equal basis with men. The battle against gender disparities should start at childhood, protecting equal access to health, food and education, and continue throughout adolescence and motherhood, ensuring women's access to reproductive health and protecting them from violence. Preventing maternal death is an issue of social justice and human rights. Women's empowerment at the individual and household levels should include the right to take control of their reproductive life by expanding access to contraception. Tackling the spread of HIV/AIDS will also require health authorities to address the lack of empowerment of women and girls that is at the root of the problem. Health and other relevant ministries need to mainstream gender equity in health and development initiatives.

#### **d. Reducing stigma and discrimination**

Governments have a critical role to play in reducing stigma and discrimination against particular population groups, such as ethnic minorities, sex workers, injecting drug users and people living with HIV and AIDS and promoting their inclusion in society. Public campaigns should place special emphasis on eradicating prejudice from an early age. Schools must teach children tolerance and pluralistic values by promoting curricula that promote respect for one's own identity and for the identity of others. Community groups and leaders also play an important role. The Sangha Metta Project in northern Thailand has used the influence of Buddhist

**Governments need to support legislation barring discrimination**

monks and nuns in Thai society to educate people on HIV/AIDS prevention and promote the acceptance and integration of people living with HIV and AIDS in their communities.

Information and education campaigns should be complemented by legislation that protects the right to health of the poor, minorities and other vulnerable groups. Several Asian and Pacific countries have introduced anti-discrimination laws to protect the rights of people living with HIV and AIDS, but laws alone are not enough. Stigma and discrimination often still persists. All stakeholders need to increase their advocacy efforts to ensure that legislation is both enacted and applied.

#### **e. Promoting healthy settings**

Increasing recognition of the health problems associated with poor environmental conditions such as poor housing and inadequate urban infrastructure led to creation of the Healthy Cities movement in the mid-1980s. Since the Ottawa Charter on Health Promotion,<sup>110</sup> the concept has expanded to a wider range of settings, including healthy villages, communities, schools and workplaces.

The term “setting” does not simply refer to the physical background but rather to the more holistic concept of a supportive environment, which also includes social, political and economic dimensions. Supportive environments extend from the local to the global and include all aspects of human life: homes, neighbourhoods and communities and places for work and leisure. It provides a framework for multisectoral approaches to issues such as unsafe water, poor sanitation, indoor pollution and the impacts of environmental degradation on human health. At the same time, a healthy setting perspective also encourages the participation of individuals and communities and emphasizes the responsibilities that local governments should assume in creating healthy local settings.

Establishing healthy cities, villages, schools and workplaces creates conditions for improvements towards MDG 4 to 6 as well as other health-related goals (For example, water and sanitation, education for health literacy, etc.). In Asia and the Pacific, the first Healthy Cities projects were launched in the late 1980s and early 1990s in Australia, Japan and New Zealand. Since then, projects have started in Bangladesh, Cambodia, China, Fiji, India, Indonesia, the Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, Nepal, Papua New Guinea, the Philippines, the Republic of Korea, Sri Lanka, Thailand and Viet Nam. The region is also home to a number of other global and regional urban management and governance initiatives (for example, Agenda 21, Sustainable Cities, Metropolitan Environmental Improvement Program, etc.) that include urban infrastructure and environment components with clear impacts on health.

Promoting healthy settings cannot rely exclusively on public campaigns and education. Governments also need to enact legal frameworks that regulate the responsibilities of the private sector, civil society and individuals. Where basic services such as health-care, water and sanitation are provided by private companies, legislation should establish appropriate standards of quality, ensure that remote

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<sup>110</sup> WHO, Ottawa Charter on Health Promotion, First International Conference on Health Promotion, Ottawa, 21 November 1986.

areas are covered and that price structures are affordable for the poor. Legislation and government action in urban planning and infrastructure can also help to create healthy settings by promoting public transport, the creation of green and open spaces for leisure exercise, etc. Establishing healthy work places or schools also requires that Governments regulate the manufacturing, advertising and sale of products that affect health, such as tobacco or alcohol. Governments can also promote healthier lifestyles by strengthening the regulation of food standards and labelling. The private sector has an important role to play in creating healthy workplaces by providing employees with health and safety options.

#### **4. INTEGRATING INFORMATION, COMMUNICATION AND SPACE TECHNOLOGY FOR IMPROVING HEALTH SERVICES DELIVERY IN THE REGION**

Advances in information, communication and space technologies (ICST) provide opportunities for improving access to, and the quality of, health systems. ICST can empower patients and health-care professionals alike. It offers governments a means to cope with increasing demand for health-care services and can help to reshape the future of health-care delivery, making it more people-centred. Examples include health information networks, electronic health records, telemedicine services, portable communicable systems, health portals and many other ICST-based tools used to assist in disease prevention, diagnosis, treatment, health monitoring and lifestyle management.

Most countries in the Asia-Pacific region have experimented with e-health initiatives, driven either by the government or the private sector and civil society. For example, as of 2006, there were 135 hospitals, 105 district-level hospitals and 30 “super specialty hospitals” in India, connected to a health network to provide telemedicine services.<sup>111</sup> In Fiji, the Government has developed a patient information system since 2001 to register each patient and keep a permanent record of the treatment.<sup>112</sup> In Kazakhstan, various pilot projects in e-health have been funded by the European Union, including EUPHIN-EAST, to extend the European Union public health information network to Eastern European countries, and TeleInVivo, a telemedicine project to transfer three-dimensional ultrasound data sets.

**Lack of ICST professionals and content are barriers to e-health**

The effective integration of ICST and health systems faces numerous challenges, including lack of connectivity, capacity and content.<sup>113</sup> Asia and the Pacific, as a region, has a highly diverse level of connectivity between and within countries. There is also disparity in connectivity between urban and rural areas, even in a number of relatively prosperous countries. ICST integration in health systems requires a large pool of professional and vocational skills among policymakers and health and ICST professionals; the latter are in short supply in many countries in the region. Even when there is connectivity and skilled professionals to apply ICT for improving

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<sup>111</sup> Armin Jamshedji Neogi, "e-Learning and e-Health - Opportunities and Challenges in India" FPA India, Bajaj Bhavan, Nariman Point, Mumbai 40097.

<sup>112</sup> Official website of Ministry of Health, *Fiji, Patient Information System (PATIS) Overview*, accessed in November 2006, available at: <http://www.health.gov.fj/patisOverview.htm>.

<sup>113</sup> InfoDev Framework Paper, "Improving health, connecting people: the role of ICTs in the health sector of developing countries", edited by Andrew Chetley, available at: [http://www.healthlink.org.uk/PDFs/infodev\\_frame.pdf](http://www.healthlink.org.uk/PDFs/infodev_frame.pdf), accessed on 31 October 2006.

health services delivery, the lack of content poses a barrier to adoption of e-health schemes. Content-related issues include content creation, but also the language used and the relevance of available content to country-specific situations.

Using ICST to improve health-care systems requires particular infrastructure. Locally suitable hardware is necessary and an enabling environment has to be created for the private sector to invest and develop the e-health service sector. There must be a clear incentive for doctors to change and incorporate e-health, since it is a disruptive technology and challenges their current way of working. Capacity-building in ICST and e-health are therefore essential to make this a reality. Additionally, there must also be a strong legal framework to clarify all aspects of e-health and make people confident in using them. Above all, the State must take a leadership role to implement e-health and promote its usage.

## **5. REGIONAL ACTION TO STRENGTHEN HEALTH SYSTEMS**

### **a. Regional public goods**

Many of the problems and constraints affecting the achievement of the MDGs cut across national and regional borders. Action taken by one country cannot solve a problem which straddles many countries and regions and warrants simultaneous action by all of them. In some cases, resources available in one country may not be adequate to tackle a common problem. Programmes, policies and services whose benefits would extend to more than one country in the region should therefore be treated as "regional public goods." In this context, the ESCAP region has taken the brunt of new communicable diseases, such as avian influenza and SARS. These diseases have the potential to turn into pandemics and cause millions of deaths and massive economic losses. Strong action by one country will not provide adequate protection. Regional cooperation through the exchange of information and knowledge and the sharing of resources to strengthen surveillance mechanisms would benefit all countries in the region.

The funding of research into many neglected tropical diseases also needs combined initiatives from groups of countries affected by these diseases. Individual countries may be unwilling to undertake the enormous cost of researching a disease which affects many countries and there also may be technological capacity-related issues. Cooperation at the regional level through a regional goods approach may be the only practical way to approach these issues in a sustainable manner. However, this approach has been greatly underutilized in the ESCAP region, and the scope and potential areas for application of this concept are explained further in the concluding part of this study.

### **b. Health systems research mechanisms for the region**

Asian and Pacific countries have an overarching need to conduct research into the functioning of health systems in the region and how they can be strengthened with specific reference to impacts, financing, delivery patterns, effectiveness, equity and quality. However, there has been little interest in health systems research, perhaps due to a combination of lack of interest in funding it, lack of capacity and a lack of understanding of its importance. Attention needs to

*Health problems that transcend national boundaries demand a regional response*

be given to creating regional mechanisms that can mobilize the country-specific data needed to review health systems. An Asia-Pacific regional mechanism may play a key role towards this end (see chapter VI).

## CHAPTER IV

# TOWARDS UNIVERSAL HEALTH-CARE COVERAGE IN THE ASIA-PACIFIC REGION

### INTRODUCTION

**T**his chapter discusses the key issues that countries in the Asia-Pacific region face in moving towards and attaining universal health-care coverage. The region is exceptionally diverse in terms of its economic development and the state of its national health systems. No single answer or set of issues will be relevant to all countries. However, the region does contain many success stories of countries which have achieved universal coverage at all levels of development, and these can provide important lessons and guidance for others seeking to emulate them.

The chapter is divided into five sections. The first section briefly reviews the linkage between achieving the health-related MDGs and health-service coverage and health expenditures. The second section discusses the nature of current national commitments to universal coverage of health care in the region and profiles the extent to which universal coverage is realized in the region with regard to a few key indicators. Analysis is provided on how universal health care might be operationalized as a policy goal and measurable target.

The third section presents the options available to countries in the region for achieving universal health-care coverage by exploring the main mechanisms used for doing so. It compares the experiences in other regions and outlines the role currently played by innovative community-based health financing schemes in the region. Section four provides the main summary of the historical experience in several countries in the region which have been successful in making universal health care a substantive reality. Based on the success stories of countries in the region, the last section identifies key lessons for achieving universal health-care coverage in the Asia-Pacific region.

### A. THE RELATIONSHIP BETWEEN PERFORMANCE ON HEALTH-RELATED MILLENNIUM DEVELOPMENT GOALS AND COVERAGE OF HEALTH SERVICES

As has been highlighted in the previous chapter, the Asia-Pacific region is characterized by considerable diversity in geography, economic development and health systems. National progress is similarly diverse with regard to the performance of countries in achieving the health-related MDGs. The countries of East Asia, followed by South-East Asia, are generally doing better in terms of progress towards the health-related MDGs. This is, of course, partly related to the fact that



these two subregions have registered better economic performance in previous decades compared with other subregions. However, the diversity of performance in the region, with even low-income economies, such as Sri Lanka or Viet Nam, doing well, illustrates that economic growth is not the only critical factor. The better performance of the East and South-East Asian subregions in achieving the health-related MDGs is largely due to the success that the countries in these subregions have had in expanding access to, and availability of, health services.

The importance of health service coverage is clear when certain indicators of health-service coverage for maternal and child care and tuberculosis for selected countries in the region are considered (table IV.1).

**Table IV. 1. Health service indicators in selected Asian and Pacific countries (Percentage)**

Country	Attended births	Measles immunization	DPT <sup>a</sup> immunization	Contraceptive prevalence rate	DOTS <sup>b</sup> detection	DOTS cure
Afghanistan	14	50	54	10.0	18	87
Bangladesh	14	77	85	53.8	33	84
Cambodia	32	65	69	23.8	60	92
China	97	84	90	87.0	43	93
India	43	67	70	47.0	47	87
Indonesia	68	72	70	60.0	33	86
Malaysia	97	92	96	55.0	69	76
Nepal	11	75	78	39.3	60	86
Pakistan	23	61	67	28.0	17	77
Philippines	60	80	79	49.0	68	88
Sri Lanka	97	99	99	70.0	70	81
Thailand	99	94	96	72.0	72	74
Viet Nam	85	93	99	78.5	86	92

Source: WHO, Global TB Control Report 2005 and World Health Report 2005, (Geneva, WHO, 2005).

a DPT: Diphtheria, pertussis and tetanus.

b DOTS: Directly observed treatment short course.

**Countries that have had success in ensuring widespread access to health services have performed well with regard to the health-related MDGs**

Countries in the region with the highest maternal mortality rates tend to have the lowest rates of contraceptive prevalence and skilled birth attendance. Similarly, the indicators for tuberculosis service outcomes are lowest in countries with the highest burden. In general, what is observed is that those developing countries, at all income levels, which have had the most success in achieving widespread access to health services are the ones which are performing best across a range of health-related MDG indicators. These countries include Malaysia, Mongolia, Sri Lanka and Thailand.



## 1. THE RELATIONSHIP BETWEEN HEALTH-SERVICE COVERAGE AND HEALTH EXPENDITURES

One important explanation for lower levels of health-service coverage in the poorer economies in the region is clearly a lower level of health expenditure. As indicated in table VI.2 below, the countries with the lowest level of health-service coverage tend to spend less than \$12-14 per capita, taking into account both public and private spending. However, aggregate levels of spending on health do not give the complete picture. For example, India and Sri Lanka spend similar amounts (about \$30 per capita) but have different health outcomes. Similarly, Cambodia and Viet Nam spend similar amounts on health but outcomes are better in Viet Nam.

**Table IV.2. Health expenditure in selected Asian and Pacific countries, 2003**

Country	Percentage of health spending that is public	Percentage of health spending that is private	Health spending as a percentage of GDP	Per capita spending <sup>a</sup>
Afghanistan	39.5	60.5	6.5	11
Bangladesh	31.3	68.7	3.4	14
Cambodia	80.7	19.3	10.9	33
China	36.2	63.8	5.6	61
India	24.8	75.2	4.8	27
Indonesia	35.9	64.1	3.1	30
Malaysia	58.2	41.8	3.8	163
Nepal	27.8	72.2	5.3	12
Pakistan	27.7	72.3	2.4	13
Philippines	43.7	56.3	3.2	31
Sri Lanka	45	55	3.5	31
Thailand	61.6	38.4	3.3	76
Viet Nam	27.8	72.2	5.4	26

Source: WHO, *World Health Report 2006* (Geneva, WHO, 2006), Annex table 2. The data have been computed by WHO to assure comparability and are not necessarily reflective of official statistics of members and associate members which may use alternative methods.

<sup>a</sup> United States dollars at average exchange rates.

These patterns of spending, when compared with health outcomes, demonstrate that efficiency and other attributes of health systems play an important contributory role in addition to the aggregate level of health spending in individual countries.

## 2. DISPARITIES IN HEALTH OUTCOMES AND ACCESS TO HEALTH SERVICES IN THE ASIA- PACIFIC REGION

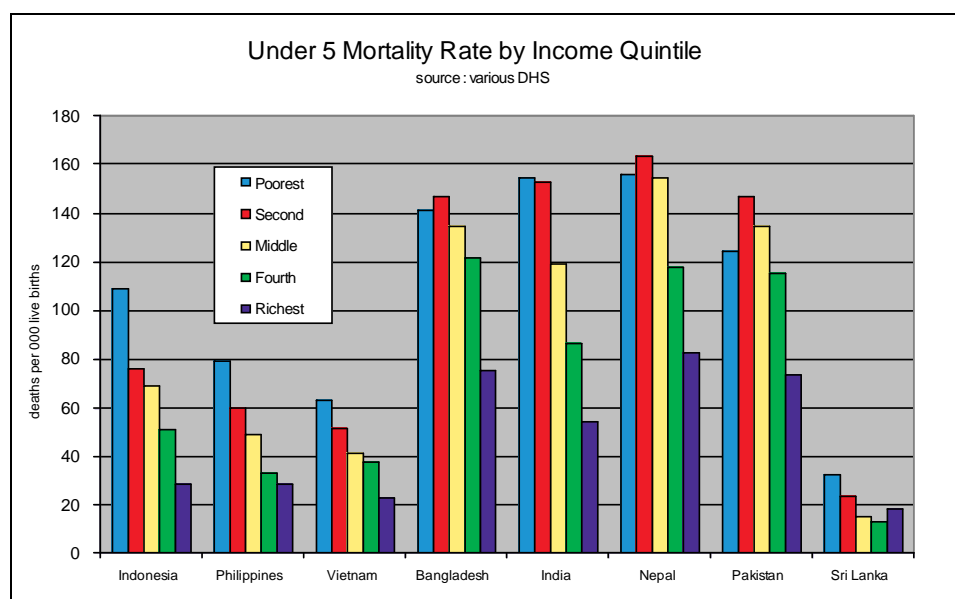
Considerable disparities exist in health outcomes and the use of health services in most countries of the region. Reliable data on such disparities are limited for most health outcome indicators, but measures of inequalities in child health outcomes

**The poor in the region suffer the worst health outcomes and lack access to health services**

and the use of maternal and child health services are now readily available for many countries in the region owing to the availability of estimates from Demographic and Health Surveys (DHS). These data reveal that the poor uniformly have worse health outcomes and worse access to health services in all countries but that the extent of these disparities varies considerably across countries.

Figure IV.1 shows disparities in under-five mortality by income quintile as revealed in recent DHS surveys in several countries. These show both fourfold and fivefold differences in health outcomes between the richest and poorest quintiles in many countries. They show that the richest people in some countries have worse child and infant mortality outcomes than the poorest quintiles in countries such as Sri Lanka and Viet Nam. Given that the richest quintiles in these countries are more able to purchase access to services, this indicates that household income alone is not sufficient to overcome bad health outcomes due to weak health systems.

**Figure IV.1. Under-5 mortality rate by income quintile, selected Asian countries**



Source: Veronica Walford, Mark Pearson, Ravi Rannan Eliya and Tharanga Fernando, "Future policy choices for the health sector in Asia" (Health Resource Centre, DFID, 2006), prepared for the Asia 2015 conference.

## **B. NATIONAL COMMITMENTS TO UNIVERSAL HEALTH-CARE COVERAGE, ACHIEVEMENTS AND OPERATIONALIZING THE CONCEPT**

All countries in the region have endorsed the United Nations Millennium Declaration<sup>114</sup>, as well as earlier international commitments for achieving health for all, such as the WHO Declaration of Alma-Ata to place primary care at the centre of national health policies. These international agreements imply a central commitment to universal coverage, or assuring access to health services for all the population. However, what this means at the level of national policies varies. An examination of

<sup>114</sup> See General Assembly resolution 55/2 of 8 September 2000.

national policy objectives indicates some diversity in how countries interpret this and in the way in which universal access to health care is defined.

## 1. UNIVERSAL COVERAGE OF POPULATIONS WITH A MINIMUM LEVEL OF HEALTH CARE AS PART OF THE RIGHT TO HEALTH

The human right to health is recognized in many international instruments. Article 25.1 of the Universal Declaration of Human Rights<sup>115</sup> affirms that "everyone has the right to a standard of living adequate for the health of himself and of his family, including food, clothing, housing and medical care and necessary social services". Article 12 of the International Covenant on Economic, Social and Cultural Rights,<sup>116</sup> the most comprehensive article on the right to health, recognizes "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health". The steps that should be taken by State parties to achieve the right to health, as mentioned in the article, include the following: (i) the provision for the reduction of the still-birth rate and of infant mortality and the healthy development of the child; (ii) the improvement of all aspects of environmental and industrial hygiene; (iii) the prevention, treatment and control of epidemic, endemic, occupational and other diseases; (iv) the creation of conditions which would assure to all medical service and medical attention in times of sickness.

*The human right to health is recognized in many international instruments*

Over the years, two analytical frameworks have been developed for a better understanding of the concept of the right to health as enunciated in the Covenant. The first is a policy-based framework, which looks at the issue from the perspective of availability, accessibility and quality of health services. The other approach to analysis is the legal one, where the issues are examined under the framework of "respect", "fulfill" and "protect". The duty of respect requires States to refrain from interfering with the enjoyment of the right to health. This applies to actions taken to stop violations of human rights directly by the State. Actions to stop pollution by State-owned industries would be considered a discharge of this duty. Under the duty to protect, States are obliged to take measures to prevent third parties from interfering with the right to health. Regulating quality and eliminating the marketing of substandard drugs are examples of actions taken under this duty. The obligation to fulfill requires States to adopt all appropriate measures, including legislative, judicial, budgetary and promotional, to provide various elements of the right to health, including the right to health services and essential drugs and medicines.<sup>117</sup>

Irrespective of the analytical framework used to interpret the obligations under the Covenant, the provision of good quality and affordable health-care services, including the supply of essential drugs and medicines, accessible to all without any discrimination, is clearly a basic right and an obligation to be fulfilled by all countries that are party to it. The Covenant has been ratified by 32 ESCAP member countries. This indicates the strong support for, and recognition of, access to basic health care as a basic human right of populations within the ESCAP region.

*Countries have an obligation to provide their populations with good quality and affordable health care*

<sup>115</sup> (Universal Declaration of Human Rights)  
General Assembly resolution 217 A (III).

<sup>116</sup> (International Covenant on Economic, Social and Cultural Rights)  
See General Assembly resolution 2200 A (XXI), annex.

<sup>117</sup> Paul Hunt, "The right of everyone to the enjoyment of the highest attainable standard of physical and mental health", Report of the Special Rapporteur (E/CN.4/2004/49 and Add. 1 and 2).

According to the General Comment on Article 12 of the Covenant, the principle of "progressive realization" imposes an obligation on countries to move expeditiously and effectively towards the full realization of these rights, while acknowledging constraints due to the lack of available resources. However, it requires countries to show constant progress towards the goal and seeks to distinguish the inability from the unwillingness of a State party to comply with its obligations.<sup>118</sup>

An approach that places the issue of universal health-care coverage within the overall concept of the right to health could provide an authoritative basis for advocacy with and within governments and other stakeholders. It would enhance the accountability of Governments in the area of health and empower vulnerable and marginalized groups to demand equal access to health care and meaningful participation in the design and implementation of health services. Above all, it would obligate Governments to provide universal access to a minimum level of affordable and good quality health care to all sections of the populations, and particularly to vulnerable and disadvantaged groups.

## **2. NATIONAL POLICY GOALS WITH RESPECT TO UNIVERSAL HEALTH-CARE COVERAGE OR ACCESS**

*Most countries in the region already have health policies that imply acceptance of the principle of universal coverage of health care*

Most countries in the region already have in place health policies that imply acceptance of the principle of universal coverage of health care at least on paper. For example, in most of South and South-East Asia, countries operate publicly financed health services that are ostensibly free or almost free for poor people. However, in practice it is well understood that the existence of such a principle does not automatically translate into universal access, or equity in provision of health services, owing to shortfalls in resources and other constraints. Most Governments do recognize this in their policies.

Nevertheless, it is useful to make a distinction between stated official policies with respect to universal health-care coverage and actual outcomes to provide clues as to what matters in achieving it. This is not to highlight the potential discrepancies between government policies and the actual situation, but more to understand how the principle of universal coverage is interpreted in different countries.

Policy documents in the form of national policy statements and national health plans from selected Asian and Pacific countries<sup>119</sup> have been subjected to content analysis to identify statements on the issue of universal coverage. Policies and positions on this issue are often not explicitly stated, except in the case of high-income countries, such as the Republic of Korea. Instead, most countries implicitly state their position with respect to universal coverage and access in terms of three policy domains: equity, equality and provision of pro-poor services. Policies on equality refer to a concern with equal resource distribution. Those considered equity policies are those intended to compensate for unfair and avoidable disparities. Pro-poor policies are those that concern the formulation of policies that specifically address the needs and concerns of the least well-off socio-economic groups in the

<sup>118</sup> WHO, "25 Questions and Answers on Health and Human Rights", *Health and Human Rights Publication Series*, Issue No 1 (Geneva, WHO, July, 2002).

<sup>119</sup> The selection of countries does not imply that other countries do not have such policies. The comparison has been made to illustrate the point that most countries do have policies that imply acceptance of the principle of universal coverage of health care.

country. Table IV.3 summarizes the key findings from this review.

As can be seen, almost all countries at all stages of economic development do profess to goals related to equality, equity and pro-poor health services. With respect to equity statements, the emphasis was on "fairness" in the financing and delivery of health care. For example, equitable contribution based on the ability to pay was mentioned in the case of the Republic of Korea. India and Hong Kong, China, highlighted equitable access to health care based on need. However, it should be noted that concern with equity in financing, usually taken as some notion that those who can afford to should pay more, is mostly an explicit concern in higher income economies than the poorer ones.

**Table IV.3. Summary of equity, inequalities and pro-poor statements in policy statements of selected Asian and Pacific economies**

<b>Equity</b>	
Hong Kong, China	Everyone should have equitable access to good quality health care for comparable needs
India	The principal objective of the new health policy is to reduce inequities and allow disadvantaged sections of society a fairer access to public-health services
Indonesia	Maintain and enhance quality, equitable and affordable health services
Republic of Korea	Social health insurance should be reformed in order to ensure more equitable contributions based on the ability to pay
Sri Lanka	The Government should organize networks of health institutions and facilities within easy reach and based on people's needs
<b>Equality</b>	
Indonesia	Provide good quality health services to all Indonesian people, including the poor
Malaysia	Enforce legislation to ensure affordable health care
Mongolia	Government will pay for full drug costs for catastrophic or prolonged illness, regardless of ability to pay and provide discounts on essential drugs
Nepal	Essential health-care services at the district level will be available to 90 per cent of the population living close to health facilities
Philippines	Universal health coverage through social health insurance and reduced out-of-pocket expenditures
Sri Lanka	Minimum standards of care irrespective of class, creed, economic status, age, gender, etc., will be established
Thailand	Universal coverage through health insurance; every person has equal access to good quality health services
<b>Pro-poor statements</b>	
Bangladesh	User fee policy, with exemptions for the poor and the disabled; Ensure that basic/essential health services are available particularly to the poor communities
Hong Kong, China	Safety nets for the financially vulnerable
India	Increased allocation for primary health sector
Republic of Korea	Insurance premiums adjusted for those with low or no income; Government pays support for low-income patients suffering from rare and incurable diseases; medical assistance programme pays for health services for the poor
Kyrgyzstan	Shift from system of reliance on hospitals to development of primary health-care services

Source: Content analysis of national policy documents provided by collaborators in Equitap project, available at: <http://www.equitap.org/>.

**Improving access to health care, particularly for the poor, are common objectives in most Asian and Pacific countries**

With respect to equality statements, there is a clear distinction between high-income and low-income countries. Whereas concern for access to good quality care for all appears to be common in some high- and middle-income economies, the emphasis in countries with relatively weaker tax-funded health-care systems is on making minimum standards of care available to all. Some Governments, such as those of Bangladesh, India and Kyrgyzstan, have attempted to define an essential health-care package (a basic/minimum package) in the formulation of their health policies.

Pro-poor statements can often be found in these policies. They range from shifting resources to primary health care (for example, India and Kyrgyzstan) to exemptions from user fees for poor (for example, Bangladesh), insurance premiums adjusted/subsidized for the poor (for example, the Republic of Korea), and safety nets for the financially vulnerable (for example, Hong Kong, China). Many policy documents define priority groups based on a rural/urban divide, recognizing that the poor in many countries live mainly in rural areas and have limited access to health care due to unequal geographical distribution of government health services and health facilities. This is seen in the case of countries such as Bangladesh, India, Indonesia, Nepal and Sri Lanka. Similarly, many policy documents have also acknowledged that women, children, older persons and persons with disabilities are in a disadvantaged position and therefore need to be considered as priority groups. Finally, those belonging to lower socio-economic groups are also frequently mentioned in policy documents as groups that should be targeted. Thus, it is apparent that improving access to health care, particularly for the poor, are common objectives in most Asian and Pacific countries.

### **3. TO WHAT EXTENT DO COUNTRIES IN THE REGION ACHIEVE UNIVERSAL HEALTH-CARE COVERAGE?**

As is evident from the preceding analysis, countries in the region have accepted universal health-care coverage as being a desirable goal and have called for (a) equity in health outcomes or the use of health services; (b) equality in access or provision of services; and (c) pro-poor targeting of health services and health spending. These are all normative implications of the goal of universal health-care coverage. It is also important to consider reality, namely the extent to which universal health coverage is actually realized. In doing this, the available data for the region makes it possible to examine the following dimensions: (a) equality in health outcomes; (b) equity in receipt of health-care services; (c) equity in the distribution of government health spending; and (d) equity in protection against the catastrophic expenses of medical care.

### **4. EQUALITY IN HEALTH OUTCOMES**

Empirical assessment of income-related inequalities in health status in low- and middle-income countries in the region has been less extensive than in certain other regions, such as Europe. This is largely because of the lack of appropriate data, such as vital registration systems that are reliable and comprehensive (and encode proxies for socio-economic status) outside the advanced Asian economies. In addition, the other potential data source for assessing health inequalities –

**Assessment of equality in health outcomes in the region is hindered by a lack of data**



population surveys – presents particular problems in the poorer economies of the region. Few of these surveys have collected objective health indicators in tandem with income measures and most use subjective health indicators based on self-reporting in response to simple questions. This approach is particularly problematic as richer individuals typically report greater levels of sickness than the poor in many of the poorer countries. This is neither intuitively reasonable nor consistent with other objective evidence. Illustrations of this are available from Bangladesh, Nepal and Sri Lanka.<sup>120</sup>

In the absence of systematic data on health status inequalities in the overall population, the major empirical advance of the past five years has been the development of methods, based on the principal component analysis, to formulate asset indices as proxies for income level in surveys lacking such direct measures.<sup>121</sup> These methods have enabled researchers to exploit widely available DHS. This has contributed greatly to the knowledge on differentials in child and maternal health in most low- and middle-income Asian countries where DHS data is available.<sup>122</sup> This type of analysis reveals significant differentials in infant and child mortality rates in many countries, which are indicated in Figure IV.1 shown previously in the chapter. Sharp income gradients exist for both measures of health status, with differentials being greatest in countries with the highest mortality rates.

## 5. EQUITY IN RECEIPT OF HEALTH SERVICES AND IN RECEIPT OF GOVERNMENT HEALTH SPENDING

The lack of data on reliable measures of health status in much of Asia has impeded the assessment of horizontal equity in the utilization of health-care facilities. Analysis of whether equal treatment for equal need is achieved requires information on the individual's health status with which to standardize his or her utilization of services.<sup>123</sup> As a result, most of the empirical work conducted to date on equity in health-care use in the region has not been standardized with respect to need, outside of Japan, the Republic of Korea and Hong Kong, China, in which empirical studies reveal patterns of health-care use similar to that reported by most European countries: pro-poor gradients in overall medical care use, but a flat or pro-rich gradient when standardized for need.<sup>124 125 126</sup>

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<sup>120</sup> A.S. Yazbeck and D.H. Peters eds., "Equity in financing and delivery of health services in Bangladesh, Nepal, and Sri Lanka" in *Health Policy Research in Asia: Guiding Reforms and Building Capacity* (Institute of Policy Studies, Washington, D.C., World Bank, 2003), pp 65-100.

<sup>121</sup> Deon Filmer, and Lant Pritchett, "Estimating wealth effects without income data or expenditure data - or tears: Educational enrollment in India", *Demography* (2001), vol. 38, No. 1.

<sup>122</sup> Davidson. R. Gwatkin, "Health inequalities and the health of the poor: What do we know?" *Bulletin of the World Health Organization* (Geneva, WHO, 2000), vol. 78, pp 3-17.

<sup>123</sup> Adam Wagstaff, and Eddy Van Doorslaer, "On the measurement of horizontal inequity in the delivery of health care," *Journal of Health Economics* (1991), vol.10, No. 2, pp 169-205.

<sup>124</sup> Gabriel. M. Leung, and Keith Y.K. Tin, in paper presented at International Health Economics Association World Congress, 10-13 July 2005 (Barcelona, Spain, Forthcoming).

<sup>125</sup> Lu, Jui-fen Rachel, in paper presented at International Health Economics Association World Congress, 10-13 July 2005 (Barcelona, Spain, Forthcoming).

<sup>126</sup> Yang, Bong-min and Soonman Kwon, in paper presented at International Health Economics Association World Congress, 10-13 July 2005 (Barcelona, Spain, Forthcoming).

**Many low- and middle-income countries in the region show significant pro-rich differentials in the receipt of medical treatment**

With the caveat that lack of standardization of use according to need is a major limitation, almost all of the empirical work to date has found evidence of significant pro-rich differentials in receipt of medical treatment in most low- and middle-income countries in Asia, particularly in countries where out-of-pocket payments are significant. Empirical studies have only revealed two consistent exceptions where the income gradient is flat or reversed, namely Malaysia and Sri Lanka.<sup>127 128</sup>

Given that equal treatment for equal need is a distant goal for most developing countries in Asia and the Pacific, the more pertinent issue with relevance to coverage is the nature of the differentials in use between public and private providers because, in the absence of social insurance in most countries, direct public provision of services is the mechanism by which public financing is typically delivered. The most recent results on the utilization of hospital and outpatients services in selected countries in Asia were provided by an Equitap Study<sup>129</sup> and analysis of DHS data.<sup>130</sup> The Equitap study indicates that the distribution of the use of public and private hospital inpatient-care services is decidedly pro-rich in most of the region, with the richest one fifth of the population accounting for 30-40 per cent of all services. The only exceptions are Sri Lanka and Hong Kong, China, where the poor have proportionately greater access to government hospital services. These patterns are reflected in the findings by Gwatkin and others that the use of hospital services for child delivery is heavily concentrated among high-income groups in most low- and middle-income countries, with few exceptions.<sup>131</sup> On the other hand, outpatient care, particularly when publicly funded and provided, is found to be less regressive than inpatient care in much of Asia, although not always pro-poor. Utilization of public sector ambulatory-care services is typically the most progressive in all settings.

**Achieving a pro-poor distribution of publicly funded services is key to ensuring a progressive distribution of medical services**

The work of Gwatkin and others indicates that a fairly progressive distribution of public sector health-care services in countries such as the Philippines, Sri Lanka and Viet Nam is associated with a more progressive distribution in the likelihood of any medical care being sought for child delivery, acute respiratory infections and diarrhoea among others. This suggests that, in most resource-constrained countries, achieving a pro-poor distribution of publicly funded services is key to ensuring a progressive distribution of medical services overall, which justifies a policy focus on the distribution of public services.

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<sup>127</sup> Davidson R.Gwatkin, "Health inequalities and the health of the poor: What do we know?" *Bulletin of the World Health Organization* (Geneva,WHO,2000) vol. 78, pp 3-17.

<sup>128</sup> A.S. Yazbeck and D.H. Peters (eds.), "Equity in financing and delivery of health services in Bangladesh, Nepal, and Sri Lanka" in *Health Policy Research in Asia: Guiding Reforms and Building Capacity* (Institute of Policy Studies, Washington, D.C., World Bank, 2003), pp 65-100); Jacob Meerman, *Public Expenditure in Malaysia: Who Benefits and Why* (New York, Oxford University Press, 1979).

<sup>129</sup> Rannan-Eliya, Ravindra and Aparnaa Somanathan, "Equity in health and health care systems in Asia" in *The Elgar Companion to Health Economics*, edited by Andrew M. Jones (Edward Elgar Publishing Limited, United Kingdom, 2006).

<sup>130</sup> Davidson R.Gwatkin, Shea Rutstein, Kiersten Johnson and others, "Socio-economic differences in health, nutrition, and population", (Washington, D.C, World Bank, HPN/Poverty Thematic Group, 2000).

<sup>131</sup> Sri Lanka and certain states in India.

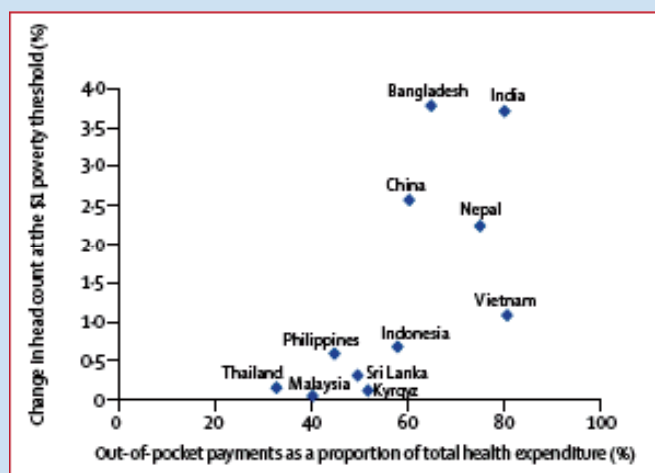


## 6. EQUITY IN PROTECTION AGAINST CATASTROPHIC EXPENSES OF MEDICAL CARE

The failure of health systems in developing countries, particularly in the Asia-Pacific region, to protect individuals against the catastrophic economic impacts of illness has received increasing attention in the policy and research literature of the past decade.<sup>132 133</sup> This has been driven by the increasing evidence from a number of countries in the region that inadequate risk protection by health systems is often a major cause of impoverishment.

A study was conducted by Equitap<sup>134</sup> to generate comparative evidence on the catastrophic and poverty impact of direct payments for a large number of Asian countries. This study reveals considerable differences between countries, even at the same income level. More importantly, it shows a strong positive association between the share of direct payments and the total out-of-pocket financing of health care and the risk of financial catastrophe (figure IV.2).

**Figure IV. 2. Change in poverty head count at the \$1 a day poverty line compared with out-of-pocket payments as a share of total health expenditures**



Source: Eddy van Doorslaer, Owen O'Donnell, Ravi P. Rannan-Eliya and others, "Effect of payments for health care on poverty estimates in 11 countries in Asia: an analysis of household survey data," *The Lancet* (2006), vol. 368, No. 9544.

<sup>132</sup> Menno Pradhan and Nicholas Prescott, "Social risk management options for medical care in Indonesia," *Health Economics* (2002), vol. 11, pp. 431-446.

<sup>133</sup> Xu, Ke, D.B. Evans, Kei Kawabata and others, "Household catastrophic health expenditure: a multicountry analysis," *The Lancet* (2003), vol. 362, pp. 111-117.

<sup>134</sup> Eddy van Doorslaer, Owen O'Donnell, Ravi P. Rannan-Eliya and others, "Effect of payments for health care on poverty estimates in 11 countries in Asia: an analysis of household survey data," *The Lancet* (2006), vol. 368, No. 9544, pp. 1357-1364.

The above information highlights the critical importance of increasing public financing in many countries to reduce reliance on direct payments. The risk of health-care expenditures driving households below the poverty level is significant in many countries in the region, including Bangladesh, China, India, Nepal and Viet Nam.

## **7. CURRENT LEVEL OF ATTAINMENT OF UNIVERSAL HEALTH-CARE COVERAGE IN THE ASIA-PACIFIC REGION**

The review in the preceding paragraphs shows that there is wide diversity in the performance of health systems in the region in ensuring effective and equitable access to health services. Although higher-income economies generally do better, it is true that some low- and middle-income economies also do well, underlining the importance of health policies and health systems design. It is also important to note that those countries that have the fewest disparities in health outcomes are those that have the fewest disparities in health-service use, highlighting that if health disparities are to be reduced, attention has to be paid to reducing disparities in access.

In general, high-income economies, such as Japan, the Republic of Korea, Singapore and Hong Kong, China do not face financial barriers in ensuring that all citizens have effective access to health services when they need them. This is reflected in patterns of overall use of health services, where the poor who are more ill make greater use of health services than the rich. For these economies, equality in access is a reality. If coverage is a concern, it is mostly with the issue of achieving equity in actual use of services in relation to illness/need, that is, equal treatment for equal need.

**Some of these countries have been able to ensure that the poor at least use as many services as the rich**

For all other countries, it is still the case that being poor generally translates into less access to, and use of, services. However, some of these countries have been able to ensure that the poor at least use as many services as the rich, even if it is not sufficient to attain full equity in relation to need. These include Malaysia, Maldives, Mongolia, Sri Lanka and Thailand. For practical purposes, this group of low- and middle-income economies can be described as having achieved universal coverage given what might be achievable at their level of resources. In the other developing economies, the poor generally have much worse access to services and use fewer services than the rich. In these countries, universal health coverage remains a long-term goal.

The other issue to be highlighted is the importance of risk protection. Although risk protection was a central driver of the historical development of the universal coverage health-care systems in Europe, it has only recently been fully appreciated as a central aspect of universal coverage. The emerging evidence shows that, in the Asia and Pacific region, risk protection is an important policy issue, and its absence impoverishes large numbers of households in many countries, such as Bangladesh, China and India. Addressing this failure should be central to any strategy aimed at achieving universal coverage.

## 8. OPERATIONALIZING UNIVERSAL COVERAGE AS A HEALTH SYSTEMS GOAL AND IDENTIFYING COUNTRY SUCCESSES

Considering the actual experiences of countries in the region and beyond, as well as the existing deficiencies of health systems in the region, universal coverage of health care as a goal could be achieved within the following meaning:

(a) Arrangements for the financing and provision of health services so that there is, at the very minimum, equality in the actual use of health services between rich and poor households and equity in the use of health services in relation to need, in the case of high-income economies;

(b) Arrangements for the financing and provision of health services so that no household is forced to make impoverishing payments in order to receive a basic minimum level of acceptable health services when ill.

On the basis of this definition, the following countries and areas can be regarded as having achieved close to universal health-care coverage in the Asian and Pacific region:

- **Low- and middle-income economies:** Brunei Darussalam; Malaysia; Mongolia; Sri Lanka; and Thailand;

- **High-income economies:** Australia; Japan; New Zealand; Republic of Korea; Singapore; and Hong Kong, China.

The above listing categorizes these successes according to levels of income. However, another important distinction can be made between the countries, namely the types of health systems that are found in each country. Countries and areas that have achieved universal health-care coverage typically fall into two different groups:

- **Predominantly tax-financed systems with universal coverage:** Brunei Darussalam; Malaysia; New Zealand; Sri Lanka; Thailand; and Hong Kong, China.

- **Social insurance systems with universal coverage:** Australia; Japan; Mongolia; and Republic of Korea.

The next section discusses how some of these countries achieved universal coverage and linkages are made with experiences in other regions.

## C. FINANCING OPTIONS FOR PROVIDING UNIVERSAL HEALTH-CARE COVERAGE

### 1. BEVERIDGE AND BISMARCK APPROACHES TO UNIVERSAL COVERAGE

National systems that effectively attain universal coverage were first created in Europe. Two different approaches were adopted – the Bismarck model and the Beveridge model. Both models emerged in the nineteenth and early twentieth centuries, and provide the means by which almost all European States now ensure universal health-care coverage.

**The Bismarck model involves the use of mandatory social insurance as the mechanism for collecting finances**

The Bismarck model, which originated in Germany, involves the use of mandatory social insurance as the mechanism for collecting finances. The providers may be public or private and tax financing may be used to supplement contributions to the insurance funds. The essential feature of this approach is that the core of the system involves the mandatory contribution of payments by specific groups of individuals to a fund (or funds). The contributions are made for the specific purpose of financing health-care costs and where the fund (or funds) are pooled separately from the funds which hold the Government's general tax contributions. The payment of the contributions confers some specific entitlement to health-care services. The contributions may be made by individuals, on a shared basis with their employers, or in some cases solely by the employer on their behalf. In such a system, there can be a financing contribution to the insurance funds from general revenue taxation. In addition, groups in the population may be provided with similar entitlements to health care without having to make direct contributions, but typically this is done by the Government making a contribution on their behalf. A typical characteristic of the classic Bismarck model is that providers are financed through payments explicitly linked to the services they provide.

**The Beveridge model involves a health-care system where the predominant mode of collecting finances is general revenue tax financing**

The Beveridge model involves a health-care system where the predominant mode of collecting finances is general revenue tax financing, with government operation of publicly financed health-care services, which are made available to all citizens for free or at a minimal price. The Beveridge model is most closely identified with the system introduced in the United Kingdom in the 1940s, which switched from an insurance-based health-care system to a fully government-owned and -financed national health service model in order to achieve universal coverage.<sup>135</sup> Outside Europe, the Beveridge approach is most commonly found in former British colonies, although it has only been successful in achieving universal coverage in a few countries. A defining characteristic of this approach is that publicly financed provision is generally by public sector providers, and these providers tend to be funded on the basis of budgets, and not on the basis of payments for specific services which may be delivered. It should be noted that, in countries which have adopted this approach, there may also be insurance mechanisms for the collection of funds. For example, a percentage of the budget for the National Health Service in the United Kingdom is financed from national insurance contributions. However, in such instances, the existence of mechanisms of this nature does not alter its defining characteristic, namely that provision is essentially financed from the budget by public sector providers.

The two models described above should be regarded as the classic models. In recent decades, countries have introduced health-system reforms that have increasingly blurred the distinction between the two models, but for the most part this classification remains useful in helping to identify the problems and issues that arise in achieving universal coverage.<sup>136</sup>

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<sup>135</sup> William Savedoff, *Tax-Based Financing for Health Systems: Options and Experiences* (Geneva, WHO, 2004).

<sup>136</sup> Joseph Kutzin, "Towards universal health care coverage: A goal-oriented framework for policy analysis", *HNP Discussion Paper*, (Washington, D.C., World Bank, 2000).

The development of universal health-care coverage in the Asian and Pacific region has historically followed and was inspired by developments in Europe. Japan chose to emulate the German social insurance experience, starting in the early twentieth century. The development of health systems in Australia and New Zealand has been influenced significantly by the experience of the United Kingdom, although Australia has developed its own unique insurance-based health-care financing system. In the case of Australia, Japan and New Zealand, it can be seen that universal coverage emerged over many decades in countries that had already reached levels of economic and social development similar to those in Europe. However, several other countries and areas in the region subsequently developed systems of universal coverage at much earlier stages of economic development and also over much shorter time-periods. These include Malaysia, Mongolia, the Republic of Korea, Sri Lanka, Thailand and Hong Kong, China. The experience of these economies demonstrates that the models developed in Europe can be applied in the Asia-Pacific region, and that countries can do so at an earlier stage if sufficient national commitment exists.

## **2. INNOVATIONS IN COMMUNITY HEALTH FINANCING IN THE ASIAN AND PACIFIC REGION**

Countries in the region, other than those mentioned above, also use a mix of tax funding and social health insurance as the main strategy for financing health services, even though they still may be some distance away from achieving universal coverage. The inability of publicly funded health services to reach rural populations and people in the informal sector has led some communities to organize themselves for protection against the financial impacts of illness. The range of health-financing instruments, which have been developed at the community level, includes microinsurance, community health funds, mutual health organizations, rural health insurance and revolving health funds. These are found in countries such as Bangladesh, Cambodia, China, India, Indonesia, Nepal, Papua New Guinea, the Philippines and Sri Lanka. In such schemes, communities are actively involved in revenue collection, risk pooling and often resource allocation. In recent years, a link has emerged between microfinance schemes and community-health financing schemes. These community-health financing schemes have been piloted by the microfinance schemes because they can reduce the impact of catastrophic events, such as death and illness, on the ability of members to repay loans. They are also seen as an opportunity to provide an additional service and a source of revenue to improve the financial sustainability of the microfinance schemes.<sup>137</sup> The main features of these schemes are that they are usually not-for-profit prepayment plans for health care, controlled by a community that has voluntary membership, and operated according to core social values and they cover beneficiaries who have been excluded from other forms of health coverage. They also play an important role in reducing out-of-pocket spending and in filling gaps in health-care coverage.

Community-based schemes were precursors for social health insurance in countries such as Japan, where community-based schemes grew in popularity in

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<sup>137</sup> Preker, Carrin, Dror, Jakab, Hsiao and Arhin-Tenkoran, "Effectiveness of community health financing in meeting cost of illness", *Bulletin of the World Health Organization*, vol. 80, No. 2, (Geneva, WHO, 2002).

the 1930s, leading to the creation of the national citizens' health insurance law in 1938, which was designed to meet the needs of farmers and the rural poor in underserved villages.<sup>138</sup> In China and more recently in India, governments have introduced expanded health-care coverage on a pilot basis through community-based schemes. They are aimed at mitigating the catastrophic impact of health-care expenditures on the poor. In China, the new cooperative medical scheme is being piloted in over 300 of the country's 2,000 counties, and is expected to cover the whole country by 2010.<sup>139</sup>

**Box IV.1. A microfinance organization providing microhealth insurance: The case of Grameen Kalyan in Bangladesh**

Grameen Kalyan evolved as a result of findings that revealed that 60 per cent of the borrowers who did not emerge from poverty despite the microcredit programme (under the Grameen Bank) had suffered serious family illnesses, draining family resources and affecting their ability to repay. The Grameen Kalyan was started as a microhealth insurance scheme to provide protection to the poor against catastrophic medical expenditure. The premium rates vary from \$0.88 for a five-member family to \$1.76 for an eight-member family. The benefits include reimbursement of hospitalization expenditure up to a ceiling of \$17 and pregnancy-related costs up to a ceiling of \$34. In addition, discounts are available on medicines, diagnostic costs and consultation fees. Free immunizations and yearly health check-ups are also provided. The premium rates and co-payment amounts are lowest for Grameen Bank members, followed by Grameen Kalyan card holders, and are higher for non-card holders. There is no difference in the quality of services received.

Health services are provided through a network of 28 clinics in eight districts and no one is denied treatment. Preventive, educational and family planning services are provided through health assistants who visit members at home. Eligible villages are located within a radius of 8 km from the clinic. The scheme has 58,000 policyholders covering 290,000 beneficiaries. Its success lies in controlling costs was achieved through the following:

- Own provision of services.
- Experience in graduating the premium through Grameen Bank knowledge of population by means of the microcredit scheme.
- Established credibility.
- Ability to integrate key aspects of the public health programmes, such as free immunization, allowing it to offer a more comprehensive package.<sup>a</sup>

<sup>a</sup> Mosleh U. Ahmed and others, "Health micro-insurance – A comparative study of three examples from Bangladesh", *CGAP working group on Micro-insurance*, Good and Bad practices, Case study 13 (2005), available at: <http://www.ilo.org/public/english/employment/finance/download/cstudy13.pdf>, accessed on 30 October 2006.

<sup>138</sup> WHO, "Reaching universal coverage via social health insurance: Key design features in the transition period" Discussion Paper (Geneva, WHO, 2004), p. 9.

<sup>139</sup> World Bank, "Rural Health Insurance: Rising to the Challenge" *Rural Health in China Briefing Note Series* (Washington, D.C., World Bank, 2005), p. 3.



Although the number of community-health financing schemes in the region is quite large, the total coverage as a percentage of the population remains low. Even the better-established schemes cover only a small proportion of the target population and are estimated to cover less than 10 per cent of the informal sector/rural population in the region. However, the number of such schemes is increasing rapidly and emerging as a powerful voice for health-system reform.<sup>140</sup> The main drawback of community-based schemes, which make them vulnerable to failure, is that they are unable to raise significant resources because of the limited income of communities, small pools for sharing risk, the small size of the schemes, limited management skills and low resource levels.

Although these interventions currently play an important role in covering excluded groups and providing access to health services in many countries in the region, they have not yet been able to provide large scale health-care coverage. Evidence from the region indicates that it may not be feasible to use community-health financing schemes as the principal means of achieving universal coverage in certain countries, although they would have an interim role in plugging gaps in health-care coverage provided under other schemes. Ultimately, these schemes may need to be amalgamated into a more broad-based universal coverage scheme through tax-funded means or social health insurance.

**Community-based health financing can complement a strong government role in providing health financing and services**

Private or voluntary health insurance often supplements publicly funded coverage, especially in high-income countries. Private/voluntary health insurance markets have been somewhat controversial as they often reach wealthier populations and have been the subject of market failures, such as adverse selection by covered individuals and "cream skimming" of better health risks by insurers. In the ESCAP region, only a few countries have private health insurance contributions exceeding 5 per cent of total health spending. These include Australia, Malaysia, New Zealand and Thailand, with percentages ranging from 5.6 to 7.8 per cent.<sup>141</sup> These low penetration levels indicate that private insurance plays a limited role in providing health coverage in the region and is mainly used as a back-up by the richer population to supplement coverage provided under other schemes.

## **D. NATIONAL EXPERIENCES IN ACHIEVING UNIVERSAL HEALTH-CARE COVERAGE**

### **1. JAPAN<sup>142</sup>**

#### **a. Development of universal coverage**

In 1961, Japan became the first country in Asia to achieve universal coverage through social health insurance. The development of the Japanese system was influenced from the beginning by the German experience and took place in similar

**Workers' insurance schemes and community-based insurance formed the basis for universal coverage in Japan**

<sup>140</sup> Steven R. Tabor, "Community Based Health Insurance and Social Protection Policy", *Social protection Discussion Paper Series* (Washington, D.C., World Bank, March 2005).

<sup>141</sup> WHO, *World Health Report, 2006* (Geneva, WHO, 2006).

<sup>142</sup> The section on Japan is based upon Toshihiko Hasegawa, contribution on Japan, *Social Health Insurance: Selected Case Studies from Asia and the Pacific* (New Delhi, WHO Regional Office for South-East Asia and WHO Regional Office for Western Pacific Region, 2005) and comments were also provided by Katsuhisa Kojima, from the National Institute of Population and Social Security Research, Japan.

conditions of an industrializing economy, although Japan retained a substantial rural economy far later than Germany. Japanese experts returning from Germany from 1897 onwards initiated discussions on the options for replicating the German system. This led to an initial trial programme of workers' insurance for some workers in State-owned and large private companies starting in 1905, which was eventually followed by the introduction of a mandatory social insurance scheme for specific formal sector workers in 1927 (mandatory workers' insurance). It should be noted that during this period most medical doctors in Japan were privately employed, and the only significant State provision was in the form of national hospitals.

The mandatory workers' insurance scheme was based on the workers' insurance law of 1922 and was Japan's first broad health insurance scheme. It covered company employees and included two separate insurance structures. One scheme was managed by the central Government and covered any company with more than 10 employees. The other scheme allowed for companies with more than 300 employees to establish their own insurance fund covering their own workers. Before the introduction of these schemes, voluntary mutual aid associations had been established in a small number of companies and employers' assistance to workers for their work-related injuries and illnesses had been stipulated by the "factory law". Both employment-based schemes were self-funded from premiums paid by workers and employers. However, none of these earlier schemes were effective in providing substantial coverage. Although the health insurance system faced a financial crisis shortly after its establishment in 1929 coinciding with the Great Depression, it gradually developed as the country's economy grew.

Nevertheless, this scheme was restricted to formal sector workers and excluded workers in small enterprises, in the informal sector and the majority of the population in rural areas. By the late 1930s, it still covered less than one tenth of the population and most Japanese remained without insurance coverage. The lack of coverage in rural areas became an issue in 1933, when the Ministry of the Interior carried out a survey in a rural agricultural district, which showed that most families had heavy debts due in large part to medical expenditures. This was at a time when the global economic recession had had a serious negative impact on living conditions in rural areas. Compared with people in urban areas, the health conditions of rural people were very bad and their health-care needs were very high. However, most rural people could not afford to pay for medical care when they needed it the most. Even if they could afford to pay, finding a doctor in a rural district was very difficult and they would usually have to pay for travel in order to see one. This situation created a vicious cycle with a considerable number of untreated illnesses in rural areas and widespread impoverishment caused by illness. In an attempt to improve the health situation in rural areas, the Government decided to introduce a community-based insurance system in 1938.

Community-based insurance was originally designed to meet the needs of the poor in underserved rural villages, but the Japanese Diet stipulated that it should be open to all. Initially, the scheme was based on voluntary enrolment, but it eventually became compulsory. From its inception, this scheme was based on the principles of solidarity and cross-subsidization, with premiums set according to household income, with richer members essentially subsidizing poorer ones. In addition, to make the scheme attractive and affordable, the government introduced a subsidy paid from government tax revenues, which has increased substantially with time.



**Japan achieved  
universal coverage in  
1961**

With the post-war boom and expansion of formal sector employment, the two schemes covered 70 per cent of the population by the late 1950s. At this point, Japanese policy moved towards achieving total coverage by making membership mandatory for all citizens and universal coverage was finally reached by 1961. The current system is a social insurance system in which the Government covers one third of the cost of the insurance system through direct subsidies paid out of taxes, in addition to other payments it makes as an employer in its own right.

#### **b. Recent developments**

Subsequent developments have focused on deepening the extent of coverage, by extending the range of services paid for. Long-term care insurance, passed by the Japanese Diet in 1997, was implemented in 2000. Japan has also had to take actions to respond to the lack of financial sustainability in many insurance funds owing to differences in the underlying age and health status of their members. The costs of medical treatment of older persons in Japan are generally greater than those of the younger population, and the rising number of older persons seeking care from the system has increased the fiscal burden on it. This has been dealt with by introducing measures to allow for cross-pooling of financing between funds, and creating a system of additional cross-subsidies for specific funds and groups, such as older persons. In 2002, co-payments were unified at 10 per cent with 20 per cent co-payment introduced for older persons with higher incomes.

#### **c. Other issues**

One important aspect of the Japanese system is its mechanisms for cost control. As in any insurance system, the risk has been that coverage would become too expensive for those who pay for it, that is, employees, employers and the government, because the use of services increased with expansions of entitlements and coverage. In fact, the Japanese system imposes few controls on patients, and has one of the world highest rates of health-care use, averaging 16 outpatient visits per capita per year. However, unlike insurance systems in other countries, such as the United States, the Japanese system has not controlled costs by setting insurance prices according to costs but by what the payers are willing to pay. Prices are set nationally, and if eventual use of services outpaces budgeted projections, prices are subsequently cut, creating a process whereby the incentives for providers to over-provide are reduced by squeezing their profit margins. In effect, Japan sets the budget for its insurance system nationally according to what its economy can afford, and then translates that into prices paid to providers, without attempting to control use by patients. This approach has had the effect of prioritizing access to care over quality, but it is argued by some experts<sup>143</sup> that this has been the key to the low overall cost of the Japanese system and its ability to minimize gaps in coverage.

**Japan's control of  
health-care costs gives  
priority to access over  
quality**

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<sup>143</sup> John Creighton Campbell and Naoki Ikegami, *The Art of Balance in Health Policy: Maintaining Japan's Low-Cost, Egalitarian System* (Cambridge, Cambridge University Press, 1998).

**The Republic of Korea adopted a mandatory, employment-based insurance strategy to expand coverage**

## **2. REPUBLIC OF KOREA<sup>144</sup>**

### **a. Development of universal coverage**

Industrialization in the Republic of Korea started later than in Japan, and its development of universal coverage also followed later. In the Republic of Korea, universal coverage was achieved over a shorter period of time.

A blueprint for the health insurance system in the Republic of Korea was first contained in the Health Insurance Act of December 1963. This scheme involved voluntary enrolment, but did not succeed because of limited financial resources and subsequent lack of participation.

The Government of the Republic of Korea eventually decided to adopt a mandatory, employment-based insurance strategy to expand coverage, influenced in part by political considerations. These included the need to respond to voters as urban workers began to demand more rights as industrialization proceeded. Expanding social welfare, maintaining social solidarity and minimizing social conflict were also important as rapid industrialization during the period from the 1960s to the 1980s had created internal pressures and concerns over social equity.

In 1977, the Government implemented the first stage of its compulsory social security programme for health care by enforcing insurance coverage for corporations hiring 500 or more workers. In 1983, this corporate health insurance programme was extended to firms with 16 or more employees. During the same period, other schemes were introduced to cover other specific population groups, including civil servants and private school teachers in 1979, families of military personnel and pensioners in 1980 and self-employed workers in 1981. In 1988, the rural regional health insurance programme was introduced to cover people in rural farming and fishing areas. Finally in 1989, a programme known as the urban regional health insurance programme was launched to cover self-employed and unemployed persons in urban areas and led to universal coverage. Rapid economic growth undeniably eased this rapid expansion over 12 years, helping to generate the necessary financial resources.

### **b. Recent developments**

Policy makers in the Republic of Korea have continued to engage in reforms since the current system was established. They have focused on deepening the coverage provided to beneficiaries in a system that has one of the highest co-payment rates among high-income economies, and controlling cost inflation in the health-care system. In 2000, more than 350 funds were merged into a single national health insurance fund. This has resulted in better risk pooling and more choice for the beneficiaries. It has also reduced problems caused by insolvent small funds, especially in rural areas. Reforms have also been introduced to ensure that the person prescribing medicines is not the person dispensing them.

**Reforms in the Republic of Korea are focusing on deepening coverage and controlling costs**

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<sup>144</sup> Based on a review by Bong-Min Yang, in *Social Health Insurance: Selected Case Studies from Asia and the Pacific* (New Delhi, India, WHO Regional Office for South-East Asia and WHO Regional Office for the Western Pacific Region, 2005).

### c. Key issues

The main concern is that out-of-pocket expenditures under the scheme on average amount to around 46 per cent, which is one of the highest among countries with established social health insurance schemes. Direct government subsidies for the social insurance programme are limited. The bulk of government financial support is used to make contributions to the premiums of the self-employed (45 per cent of the premium in 2002), for a separate medical-aid programme that covers the poor and uninsured, and to pay for some public health programmes. Combined with relatively low payroll premiums of only 4 per cent of wages, this has meant that the main insurance system has had limited financial resources, and this in turn has led to a policy of large co-payments, both to bridge the financing gap and reduce demand. Consequently, citizens of the Republic of Korea face much larger out-of-pocket payments than those of most other high-income economies and the poorest among them are also enrolled in a separate medical-aid programme.

## 3. THAILAND<sup>145</sup>

### a. Recent developments

Universal health coverage is provided in Thailand through a mix of schemes, such as:

(a) The civil servants' medical benefit scheme, which covers all civil servants (including employees of State enterprises) as well as pensioners and their dependents (parents, spouses and up to three children under 18 years old). It is a non-contributory scheme that covers 7 million people or 11 per cent of the population;

(b) The social security scheme, which covers inpatient and outpatient care, health care for non-work related illnesses, injuries, maternity, disability, old age and death. It is managed by the Social Security Organization and falls under the supervision of the Ministry of Labour. The scheme is aimed at workers in the formal sector and covers 7.4 million people, or 12 per cent of the population in 2003;

(c) The universal coverage scheme, which was started in 2001 and covers the largest proportion of the population.<sup>146</sup> The scheme is aimed at providing a standardized benefit package to Thai citizens, regardless of their socio-economic status and religion. The benefit package includes inpatient/outpatient treatments at the registered primary care and referral secondary facilities, dental care, health promotion/prevention services, and drug prescription fees. The scheme covers about 46.5 million people, or 72 per cent of the population.

In addition, about 5 million people are covered by voluntary health insurance schemes, which are usually used to provide additional coverage over and above that provided by other schemes. There has been a significant increase in government health expenditure both as a proportion of total government expenditure and also in per capita terms after the introduction of the universal coverage scheme.

*Public spending on health in Thailand has risen significantly in recent years*

*The universal coverage scheme in Thailand emphasizes primary health care*

<sup>145</sup> Based partly on ILO, "Technical Note on Financing Universal Health Care in Thailand" (Geneva, ILO, 2004) and UNESCAP sources. Data available for 2003.

<sup>146</sup> A nominal fee of 30 Baht (less than \$1) per visit was prescribed until 2006, when a decision was taken to do away with pre-payment.

## **b. Key issues**

The universal coverage scheme has proved to be successful as it has established a concrete legal entitlement for all Thai citizens to access health services. It also reduced financial barriers to accessing health services and thus provided many benefits for the poorest sections of the population.

The universal coverage scheme combines capitation funding with a shift to delivery led by primary care to keep costs under control. This is a radical change from the social security scheme, which uses large hospitals over 100 beds as the main contractor. When the social security scheme was set up, primary curative care was delivered in hospital departments, or by government doctors who worked in private clinics out of hours. The emphasis on primary care in the universal coverage scheme represents a bold departure.

However, despite the popular approval for this scheme, it still faces some problems of financial sustainability. There has been a rapid rise in government health expenditures, both in absolute terms and as a proportion of total government expenditure. The capitation payment system ensures that all provider networks receive a fixed budget depending on the number of patients registered. These rates have been undergoing upward revision on a yearly basis as hospitals struggle to balance budgets and provide comprehensive care. The capitation rates fixed under the universal coverage scheme have been lower than estimated costs. The scheme is not a health insurance scheme as it is not financed by user contributions; this has created increasing pressure on the government budget. The Government of Thailand is considering a sustainable long-term financial strategy in order to ensure the fiscal sustainability of the scheme.

## **4. MONGOLIA<sup>147</sup>**

### **a. Development of universal coverage**

*Despite being mainly a rural, low-income economy, Mongolia has shown progress towards universal coverage*

Mongolia has made significant progress towards universal coverage while remaining a predominantly rural, low-income economy. Mongolia is also unusual in that the evolution of its insurance social system has taken place in an economy that has yet to industrialize.

Social health insurance is a relatively new development in Mongolia. Under the communist system that operated before 1990, Mongolia built up an extensive tax-financed health-care system with an impressive level of health infrastructure, even in rural areas. Coverage was almost universal as government services were free of charge. However, the country's low population density and large nomadic population would have meant that inequalities in access to service would still have existed owing to physical barriers. This system essentially collapsed in the early

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<sup>147</sup> Based on Nymadawa, P. and K Tungalag. Review on Mongolia in "Social Health Insurance: Selected Case Studies from Asia and the Pacific" (New Delhi, India: WHO Regional Office for South-East Asia and WHO Regional Office for Western Pacific Region, 2005), and Dorjsuren Bayarsaikhan, "Social health insurance experience in Mongolia", in Comparative Desk-review of Social Health Insurance Experiences in Japan, Korea, Mongolia (Colombo, Sri Lanka, Equitap Project, 2005) (<http://www.equitap.org>).

1990s, as economic contraction led to substantial declines in the government budget in real terms, and deterioration in funding for government health facilities. In return, it led to the levying of user charges by these facilities, the creation of significant financial barriers to access and growing inequalities in coverage. This was reinforced by policy changes in 1990 that recognized the need for user charges.

Mongolian policymakers therefore decided to introduce an additional financial mechanism to help mitigate the barriers caused by the introduction of user charges. This social health insurance scheme implemented under the "citizen's health insurance act of 1993". An important factor in this development was a genuine concern on the part of policymakers for social equity and maintaining social solidarity. In designing this scheme, Mongolian experts visited other Asian countries and invited international technical experts to assist.

The insurance system that was introduced called for compulsory coverage of all employed persons. However, as poor workers could not afford to pay, a decision was taken to enroll them and other vulnerable groups into the scheme and finance their participation directly from the State budget. At the same time, government health facilities continued to receive budgetary support, so the insurance scheme was used to help to pay the user charges that these facilities also levied, which largely covered the variable costs of operation. The services covered by the insurance scheme were originally restricted to inpatient care but modifications to the scheme in recent years have added coverage of ambulatory care.

Despite its low level of economic development, Mongolia was able to expand coverage in this new system quite rapidly. In the first year of operation (1994), the new health insurance fund contributed 40 per cent of financing for the health system and overall coverage reached 95 per cent of the population by 1998. The reasons for this remarkable success appear to have been the willingness of the Government to use tax financing to pay the insurance premiums for most of the population. The achievement is even more impressive considering that a quarter of Mongolia's population is nomadic and large distances separate most population centres in the country.

However, coverage has fallen since 1998. The main reasons for this have been that (a) Mongolia is still in a phase of economic transition; (b) although coverage is compulsory, enforcement has been weak; and (c) the Government reduced its subsidy for premiums for vulnerable groups after 1998.

## **b. Key issues**

Although Mongolia has not yet fully achieved universal coverage, its achievements are important as they demonstrate what can be attained given sufficient national commitment in a low-income, agrarian economy. In retrospect, it can be seen that the critical component in its success was Mongolia's willingness to use tax financing to pay the premiums of those who were outside the formal sector, but this presents much larger fiscal challenges than in developed countries owing to the very small size of its formal sector. Although improvements in coverage may come from improving the quality of services, previous experience suggests that future expansion in coverage will depend on Mongolia expanding formal sector employment, as well as the ability and willingness of the Government to increase direct subsidies for vulnerable groups enrolled in the scheme.

*Mongolia's willingness to use taxes to subsidize insurance premiums was key to implementation of universal coverage*

## 5. SRI LANKA<sup>148</sup>

### a. Development of universal coverage

Sri Lanka is the one of the few low-income countries in the region to have achieved universal coverage; it was able to do so while its per capita GDP was still below \$500 annually. It has done so by relying on tax-financed and government-operated health services, and does not have any social insurance mechanisms.

Starting in the 1930s, the government rapidly expanded the provision of free government health services into rural areas. The service consisted initially of dispensaries and small hospitals, but most hospitals were gradually enlarged into larger institutions as the system expanded. The expansion was financed by increased funding from taxation; and overall taxes were increased during this initial period. By 1950, Sri Lanka had built an extensive infrastructure in rural areas, which in turn encouraged high usage levels by the poor. Use of government health services has reached the equivalent of two outpatient visits per capita per year, and 10 inpatient admissions per 100 people per year, both of which are comparable to the rates of OECD countries today.

**Universal coverage in Sri Lanka has depended on providing the rural poor with effective access to health services**

Owing to the large number of facilities, government health services were physically accessible to most of the rural population and offered a comprehensive range of services from outpatient care to secondary hospital services. After 1951, the most important barrier to access - user charges - was abolished and government health services became genuinely accessible to the poor. As the poor became familiar with the availability of these services, overall utilization by the poor increased to a level greater than the richest households, indicating that equality of use has been achieved. In addition, the wide availability of hospital care, including inpatient services, has meant that rural Sri Lankans rarely face ruinous expenses when obtaining medical care, thereby achieving a high degree of risk protection. Universal coverage in Sri Lanka has depended on providing the rural poor with effective access to health services, including inpatient care, by eliminating price barriers, reducing the distance they have to travel to reach facilities, reducing supply constraints and minimizing social and non-financial barriers that may discourage the poor from using these services. This has been reinforced by emphasizing hospital and inpatient care in government budgets so that the range of services for poor people is not restricted, and the distribution of government spending across districts is relatively equitable. Markers of the extent to which universal coverage has been achieved include not only the high rates of medical service utilization in the poorest quintiles, but also indicators such as 96 per cent of all childbirths in hospitals, and close to 100 per cent immunization rates.

### b. Key issues

Sri Lanka's success in achieving universal coverage through a purely tax-funded approach to providing free health services raises a number of questions, as many countries in the region which have ostensibly followed this approach have not achieved the same outcomes. Unfortunately, there has been insufficient research on health systems to answer this question fully. Nevertheless, the following factors appear

**Sri Lanka is able to effectively target the poor with its tax subsidy for health-care services**

<sup>148</sup> Based on Ravi P.Rannan-Eliya and Nishan de Mel, "Resource Mobilization for the Health Sector in Sri Lanka", *Data for Decision Making* (Boston, MA, Harvard School of Public Health, 1997).



to have made a difference and proven to be influential in Sri Lanka: (a) physical access to free government health services is more of a reality in Sri Lanka than in many other low- and low middle-income countries because the Government has emphasized the construction of a high-density but low-cost network of rural facilities to ensure that almost all Sri Lankans are within 1-2 km of a facility; (b) Sri Lanka has focused on minimizing price barriers, and not only are user fees not levied in government facilities, but active measures are taken to minimize any illegal fees being charged by staff; (c) Sri Lanka has emphasized the importance of risk protection in budget allocations over cost-effectiveness, so the poor have been provided with a full range of services instead of a restricted range, thus encouraging public support and confidence in the system; (d) Sri Lanka has emphasized access over quality and reduced costs by tolerating reductions in qualitative aspects of the services which are less important to the poor; (e) this in turn has encouraged richer patients to voluntarily choose private care, thus reducing the financial burden on the Government.

## 6. MALAYSIA

### a. Development of universal coverage

From the 1960s, Malaysia substantially expanded its network of free government health facilities into rural areas in order to make access a reality for the poor. As in Sri Lanka, political pressures for redistribution and social equity have been important since the rural electorate is very important in Malaysia. There has been an emphasis on providing more than basic primary care services to the poor and budget allocations to hospitals are substantial.

*Free health-care facilities in rural areas made access a reality for Malaysia's poor*

Social insurance schemes did not exist in Malaysia when government services first began in rural areas, and so the country has relied solely on tax-financed provision to achieve universal coverage. This is not to say that government services provide all care, as there is also a large private sector, which dominates the provision of outpatient services. However, inpatient services continue to be dominated by public sector provision. Parallel private provision also plays an important role in enabling the poor to access public facilities as it attracts richer patients and gives poorer patients greater access to government facilities.

### b. Key issues

As in many countries with a tax-financed, public delivery system, the fiscal cost of Malaysia's health services is a source of the country's concern. Although annual government expenditure has increased by up to 10 per cent per annum in line with general economic growth, overall public expenditure on health as a share of GDP is low by international standards. The government is currently considering introducing social insurance financing.

#### Box IV.2. Working towards universal coverage of health services in the Pacific subregion

There are unique demographic and geographic factors in Pacific island countries and territories which determine the ability of Governments in that subregion to provide universal health-care coverage for their populations. Although universal coverage is widely accepted as a suitable goal for the Pacific subregion, coverage is not always consistent and the quality of care provided can be variable. For example, universal access for maternal and newborn care is far from being generally available in many Pacific island countries and territories. Only half of mothers and newborns receive some care, but do not have access to the full range of pre- and post-natal care. Achieving consistent universal coverage for all Pacific island populations for all essential services will require a substantial increase in allocations to health services. It is possible to envisage various scenarios for scaling up services, taking into account the specific circumstances in each country and territory. While the financing effort seems to be within the reach of some countries and territories, it may go beyond what can be borne by Governments alone. Making up for the staggering shortages and imbalances in the distribution of health workers in many Pacific island countries and territories will remain a major challenge for years to come.

Ensuring universal access is not just about increasing the supply of services and paying health-care providers. For services to be taken up, financial barriers impeding access to such services have to be eliminated and users given predictable financial protection against the costs of seeking care particularly against the catastrophic payments that can push them into poverty.

Whether they choose to organize financial protection on the basis of tax-generated funds, through social health insurance or through a mix of schemes, it is important that ultimately no population groups are excluded, and that essential services are financed in a coherent way through the selected system. Increasing the tax rates in the subregion is not always feasible and it is limited by the size of the working population. Alternative methods could be explored. While it can take many years to move from a situation of a limited supply of services, high out-of-pocket payments and limited access by certain groups to a situation of universal access and financial protection, the extension of health-care supply networks has to proceed in parallel with the development of such mechanisms.

### E. KEY LESSONS FOR ACHIEVING UNIVERSAL HEALTH-CARE COVERAGE IN ASIA AND THE PACIFIC

**Implementing universal coverage cannot be achieved without political commitment**

Several lessons emerge from this review of successful experiences in the Asia-Pacific region and elsewhere:

(a) Most countries in the region already have in place health policies that imply the principle of universal health care coverage but struggle to find ways of implementing it;

(b) Countries can achieve universal coverage in either of two ways: principally by using the tax-financed national health services model, as in Malaysia, Thailand



and Sri Lanka, and or the social insurance approach, as in Japan and the Republic of Korea. Others forms of health financing can only be supplementary;

(c) The administrative and managerial requirements for successful implementation of social insurance approaches may be lacking in the poorest countries, and in these cases only the tax-financed approach has proved successful;

(d) Whichever approach is adopted, coverage of poor populations requires significant tax-financing, either in the form of direct budgetary support to free-of-charge government health-care facilities, or in the form of tax-contributions to social insurance funds in place of premium payments by the poor;

(e) Implementing universal coverage has significant financial and administrative implications and cannot be achieved without political commitment that places universal coverage in the forefront of the political and policy agenda. Academics and researchers in the field of health and equity in countries of the region need to find a way to ensure that their research findings are used as evidence for shaping policy. This bridge could be provided by various stakeholders, including civil society groups;

(f) Countries that have made progress towards achieving universal coverage do not use explicitly targeted mechanisms. Rather, they emphasize universality in entitlements and access to services or insurance coverage. Where targeting does take place, as in Malaysia and Sri Lanka, it tends to be informal and not explicit;

(g) Universal coverage must involve reduction in price barriers faced by the poor, regardless of whether they are official prices or co-payments. Furthermore, actual physical supply of services must be ensured so that the poor are not prevented from accessing services because of their physical location and distance;

(h) Economic development, in particular its tendency to expand formal sector employment and the Government's capacity to spend, provides the fiscal space for successful implementation of a social insurance strategy aimed at achieving universal coverage;

(i) Countries that have achieved universal coverage provide a full range of services in the covered package and have not attempted to do so by restricting the package only to low-cost services of a very basic nature;

(j) Initiatives such as community-based health-financing schemes play a role in providing health-care coverage to excluded groups and reducing the financial impact of illness in a number of countries in the region. However, these schemes cannot realistically be expected to be the principal means for achieving universal coverage but can be supplementary to tax-funded schemes or social health insurance;

(k) Successful countries have often learned from international experience when designing and building their systems, although always choosing locally appropriate solutions and strategies. Regional cooperation can facilitate the sharing of experiences between countries in the region on different approaches to achieving universal coverage. It can also play an important role in developing mechanisms to strengthen health systems in the region and enable a better understanding of existing success stories.



## CHAPTER V

# INVESTMENT REQUIRED TO ACHIEVE THE HEALTH-RELATED MILLENNIUM DEVELOPMENT GOALS

### INTRODUCTION

**S**ustainable health financing provides the resources and economic incentives for the operation of health systems. It is a key determinant of health systems performance in terms of equity, efficacy and health outcomes. Previous chapters have shown that a number of countries in the Asian and Pacific region have already achieved the health-related MDGs and implemented universal health-care coverage. Others, especially low-income countries, still have a long way to go. However, they can achieve these goals provided that adequate attention is paid to developing and strengthening health systems, which in turn requires attention and action on increasing investment in health.

The public benefit from expenditures on health may exceed the private benefits of users. This situation, as well as high levels of out-of-pocket expenditure in poorer countries and limited private-sector capacity to offer affordable health care, means that Governments should ensure that investments are made to provide universal coverage of good quality basic health care. However, even with Governments playing a central role, funding in certain countries will fall short of the investments needed and external funding will be a necessary financial complement.

Establishing accurate costings of investment requirements is challenging, yet all the evidence points to the need for greater investment. The evidence also shows that achieving the MDGs is affordable and possible with greater budgetary outlays and some external assistance for the countries which need it the most. This chapter considers the significance of investment to achieve the health-related MDGs, but also recognizes that investments in the health sector alone are insufficient. Issues such as poverty, education and the environment must be addressed in a wider context. Hence, effective structuring of health systems by Governments and linkages to other sectors are vital for the delivery of health-care services.

The chapter begins by considering investment requirements that are needed by developing countries to achieve the health-related MDGs. The chapter then focuses on the ESCAP region and specifically those countries with the most pressing needs. The following section looks at the potential impact of demographic and epidemiological changes on investment requirements. The chapter then considers what can be done to close the investment gap before presenting the conclusions and recommendations.

**Increased spending does not guarantee superior health outcomes**

## **A. ADDRESSING SHORTCOMINGS IN THE PROVISION OF BASIC HEALTH CARE**

This section starts by considering difficulties in terms of data as well as important issues regarding the scaling up of interventions. It then looks at the costs of scaling up at the global level and the costs of delivering interventions in per capita terms, including examples from countries in the ESCAP region.

Calculating the cost of health care in the Asia-Pacific region is a significant task. To look at shortcomings, knowledge of the desired and existing levels of spending is required. Methods of obtaining figures include considering total levels of health expenditure (from government and private sources and their aggregate), health expenditure per capita and health expenditure as a percentage of GDP, or government spending.

One of the factors complicating the situation is that many countries lack reliable data. For example, registration of vital events is poorly done in many countries. This underscores the importance of developing a solid evidence base through research, monitoring and evaluation. The accuracy and reliability of projections to the year 2015 are even more uncertain given the impact of wide-ranging demographic, epidemiological, economic and environmental changes. Transposing findings from one setting to another is also difficult. Case and country studies tend to consider different environments, which present differing constraints on policymaking and implementation. Even studies of the same health-care system may yield very different cost estimates, depending on the methodology used, how health needs are measured and the actual package of interventions deemed necessary.

Essentially, increased spending does not guarantee superior health outcomes. Hence, to improve overall well-being, quantitative goals have to be considered alongside quantitative issues in matters such as training, delivery and governance.

Despite such limitations, several attempts have been made to assess the expenditure required to achieve the MDGs – on country, regional and global scales – and ways of financing gaps in necessary spending. These give an idea of the magnitudes of expenditures necessary but also qualitative issues of vital importance.

### **1. THE COST OF SCALING UP**

A literature review on the costs of scaling up health interventions reveals some of the major expenses that need to be taken into account (table V.1).<sup>149</sup> The study shows that average costs need to be calculated for different geographic locations, especially to take account of urban-rural cost variations. It provides a useful guide to drawing up policy and investment strategies to scale up health interventions.

**Developing countries need to find between \$20 billion and \$94 billion more every year until 2015 in order to achieve the health-related MDGs**

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<sup>149</sup> B. Johns and T.T. Torres, "Costs of scaling up health interventions: a systematic review", *Health Policy and Planning* (2005), vol. 20, No 1., pp 1-13.

**Table V.1. Major cost areas involved in scaling up health interventions**

Area	Points to consider
Geography and infrastructure	<ul style="list-style-type: none"> <li>• Higher cost of transport, training and supervision in remote areas</li> <li>• Some areas are more costly to build in, maintain and travel in</li> </ul>
Fixed cost	<ul style="list-style-type: none"> <li>• With increased demand for services, changing marginal costs may be realized in hospitals/health centres and other settings</li> <li>• Fixed cost of infrastructure spread over fewer people</li> <li>• May need different technologies (for example mobile facilities)</li> <li>• Programmes with high fixed costs/centralization will show declining marginal costs</li> </ul>
Human resources	<ul style="list-style-type: none"> <li>• Not enough trained and professional people to implement scale-up</li> <li>• Doctors may need incentives/pay to locate in rural areas</li> </ul>
Managing the process of scaling up	<ul style="list-style-type: none"> <li>• Increased need for communication</li> <li>• Lack of administrative infrastructure</li> <li>• Need for quality assurance</li> <li>• Need for patient demand</li> <li>• Different subpopulation groups</li> <li>• May incorporate economies of scope</li> <li>• With time, programmes are run more efficiently, or less efficiently if scaled up too quickly</li> <li>• May save costs by buying in bulk</li> </ul>

Source: adapted from B. Johns and T.T. Torres, "Costs of scaling up health interventions: a systematic review", *Health Policy and Planning* (2005), vol. 20, No 1, pp 1-13.

The estimates available from some of the main studies that have considered incremental spending requirements for the health-related MDGs in recent years suggest that developing countries in all ESCAP subregions will need financing ranging from \$20 billion to \$94 billion every year until 2015. These estimates are given for different years and cover different countries. They also suggest the amount needed from donor countries and agencies would be in the order of \$15 billion to \$33 billion per year.

In addition to these studies, several others offer broad calculations on the cost of achieving all MDGs under particular circumstances or environments. Certain studies, including some by the World Bank, estimate annual financing needs until 2015 to be in the range of \$35 billion to \$76 billion, or more. A study focusing on 42 heavily indebted poor countries concludes that they would require finances of about \$20 billion to achieve the health-related MDGs.<sup>150</sup> Only three of the heavily indebted poor countries are in the Asian and Pacific region, namely the Lao People's Democratic

150 A. Pettifor and R. Greenhill, "Debt relief and the Millennium Development Goals", Occasional Paper, background paper for the *Human Development Report 2003*, (New York, UNDP, 2003), available at: <[http://hdr.undp.org/docs/publications/background\\_papers/2003/HDR2003\\_Pettifor\\_Greenhill.pdf](http://hdr.undp.org/docs/publications/background_papers/2003/HDR2003_Pettifor_Greenhill.pdf)>

Republic, Myanmar and Viet Nam; moreover they, especially Viet Nam, may not face such a daunting task as many other heavily indebted poor countries in achieving the MDGs.

## 2. THE COST OF DELIVERING INTERVENTIONS

**A package of essential interventions could cost in the range of \$20 to \$38 per capita per year, which is far beyond the domestic resources of the least developed countries**

The delivery of health-care interventions is generally calculated on a per capita basis. The first comprehensive study on the cost of essential health-care interventions was presented in the *World Development Report 1993*<sup>151</sup> entitled "Investing in health", which defined and offered cost estimates of an essential package of health-care services for low- and middle-income countries. These data are presented in table V.2. In each country, the essential services included treatment of tuberculosis and STDs, limited ambulatory care, and maternal and child-health services

**Table V.2. Annual per capita costs of health interventions in low- and middle-income countries**

Package or intervention	Annual cost per capita (in United States dollars)	
	Low-income country (<\$350)	Middle-income country (<\$2,500)
Public health package	4.2	6.8
Minimal essential package of clinical services	7.8	14.7
Short-course chemotherapy for tuberculosis	0.6	0.2
Management of the sick child	1.6	1.1
Prenatal and delivery care	3.8	8.8
Family planning	0.9	2.2
Treatment of STDs	0.2	0.3
Limited care <sup>a</sup>	0.7	2.1
Total, public and clinical services	12.0	21.5

Source: World Bank, *World Development Report 1993: Investing in Health* (Oxford, World Bank, 1993).

<sup>a</sup> Limited care includes assessment, advice, alleviation of pain, treatment of infection and minor trauma, treatment of more complicated conditions as resources permit.

The estimated annual cost of this package was approximately \$12.0 per capita per annum in low-income countries and \$21.5 per person per annum in the wealthier middle-income countries. It is unclear whether these calculations include the costs of scaling up human resources and health-care facilities in each of the countries. However, the figures give an idea of what interventions are relevant to public health, in certain ways a precursor to the health-related MDGs, as well as their relative costs.

In 2001, CMH<sup>152</sup> presented further cost estimates for an essential package

<sup>151</sup> World Bank, *World Development Report 1993: Investing in Health* (Oxford, World Bank, 1993).

<sup>152</sup> WHO, *Macroeconomics and Health: Investing in Health for Economic Development* (Geneva, WHO, 2001).

(see table V.3) that seeks to expand specific disease-control and treatment services in an effort to create an overall package that would achieve the health objectives of the MDGs.

**Table V.3. Health interventions proposed in the Commission on Macroeconomics and Health package of essential services**

<b>Tuberculosis treatment</b>	Directly observed short-course treatment for smear-positive patients Directly observed short-course treatment for smear-negative patients
<b>Malaria prevention</b>	Insecticide-treated nets Residual indoor spraying
<b>Malaria treatment</b>	Treatment for clinical episodes of malaria
<b>HIV/AIDS prevention</b>	Youth-focused interventions Interventions working with commercial sex workers and clients Social marketing and distribution of condoms Workplace interventions Strengthening of blood transfusion systems Voluntary counselling and testing Prevention of mother-to-child transmission Mass media campaigns Treatment for sexually transmitted diseases
<b>HIV/AIDS care</b>	Palliative care Clinical management of opportunistic illnesses Prevention of opportunistic illnesses Home-based care
<b>HIV/AIDS highly active antiretroviral therapy</b>	Provision of highly active antiretroviral therapy
<b>Childhood disease-related interventions (treatment)</b>	Treatment of various conditions (acute respiratory infections, diarrhoea, causes of fever, malnutrition, anaemia)
<b>Childhood disease-related interventions (immunization)</b>	Vaccinations (Bacillus Calmette-Guérin; oral polio vaccine; diphtheria, pertussis and tetanus; measles; hepatitis B; and haemophilus influenzae type b)
<b>Maternity-related interventions</b>	Antenatal care Treatment of complications during pregnancy Skilled birth attendance Emergency obstetric care Postpartum care (including family planning)

Source: WHO, *Macroeconomics and Health: Investing in Health for Economic Development* (Geneva, WHO, 2001).

The cost of such a package of essential health interventions is estimated to be between \$34 and \$38 per capita per year over the period 2007-2015. These figures are average values for 83 low- and middle-income countries and could be too high with regard to the ESCAP region, especially because of the impact of HIV/AIDS in sub-Saharan Africa. In fact, the CMH figures for only East Asia, the Pacific and South Asia are about 15 per cent lower than the above-mentioned figures.

**Three low or lower-middle income countries in the ESCAP region have achieved universal or near universal health-care coverage**

Three low- or lower-middle income economies, namely Malaysia, Mongolia and Sri Lanka countries in the ESCAP region achieved universal health-care coverage or near universal coverage between the 1970s and 1990s. At the time they achieved such coverage, per capita public expenditures on health and total expenditures on health services were in the range of respectively \$8-\$10 and \$14-\$18 in Sri Lanka,<sup>153</sup> \$25-\$35 and \$45-\$55 in Malaysia,<sup>154</sup> and \$10-\$12 and \$12-\$15 in Mongolia.<sup>155</sup> Most of these expenditure levels are considerably less than those suggested by CMH, even when adjusted for inflation. It should be noted, though, that pro-poor policies were implemented, and especially in the case of Mongolia and Sri Lanka, the priority was on access rather than quality of services.

In the above examples, HIV/AIDS prevention and treatment interventions had little or no impact on costs. This, nevertheless, is not the case in the United Nations Millennium Project (discussed further in section C), which estimates the cost for achieving the health-related MDGs at \$13-\$25 in 2006, rising to \$30-\$48 in 2015.<sup>156</sup> However, the median average for the whole period between 2006 and 2015 is \$29, a considerably smaller amount than the CMH estimates.

Costs related to HIV/AIDS prevention and treatment interventions make up approximately 20 per cent of total costs in the two ESCAP countries (Bangladesh and Cambodia) examined in a five-country study.<sup>157</sup> The other three countries are Ghana, Tanzania and Uganda, which all have higher relative costs related to HIV/AIDS. This study also estimates that for these five countries the cost of implementing the programmes to achieve the health-related MDGs is \$20-\$35 per person per annum over the period between 2005 and 2015. Such figures again are considerably less than the CMH estimates, although higher than the aforementioned figures for Sri Lanka and Mongolia. The United Nations Millennium Project concludes that the main factors that need to be scaled up or enhanced to develop health systems and achieve the MDGs are the following:

- System-wide health human resources;
- Infrastructure, by increasing capital stock (both by building new infrastructure and upgrading existing facilities);
- Management capacity;
- Monitoring, evaluation and quality assurance;
- Demand for and access to essential interventions;
- Health-related R and D.

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<sup>153</sup> R.P. Rannan-Eliya and Nishan de Mel, "Resource mobilization for the health sector in Sri Lanka", Data for Decision Making Publication (Boston, Harvard School of Public Health, 1997).

<sup>154</sup> Calculated from data extracted from annual administrative reports of the Government of Malaysia compiled during preparation of "Towards a model of endogenous mortality decline: The dynamic role of learning and productivity in health systems", thesis by R.P. Rannan-Eliya submitted to the Faculty of the Harvard School of Public Health in partial fulfilment of the requirements for the degree of doctor of public health (Boston, Harvard University, 2004).

<sup>155</sup> Ministry of Health, Nutrition and Welfare, Mongolian National Health Accounts (Ulaanbaatar, Ministry of Health, Nutrition and Welfare, 2005).

<sup>156</sup> United Nations Millennium Project, Investing in Development: A Practical Plan to Achieve the Millennium Development Goals (New York, United Nations Millennium Project, 2005).

<sup>157</sup> United Nations Millennium Project, "Millennium Development Goals needs assessments: Country case studies of Bangladesh, Cambodia, Ghana, Tanzania and Uganda", unpublished paper for the United Nations Millennium Project, New York, 2004.



The United Nations Millennium Project uses own estimates proposed by countries themselves of the numbers of health posts and health centres to assess recurrent costs. The task is complex given the uncertainties about existing capacity in these countries and the significant differences in their service delivery models. The projected resources required to meet the health-related MDGs in Bangladesh and Cambodia are shown in tables V.4 and V.5.

In Bangladesh, average per capita spending to attain the health-related MDGs over the period between 2005 and 2015 is \$20.6. A large part of this would have to come from external sources, and in the latter years of the period an important driver of cost will be AIDS treatment. In addition to a lack of funding, health systems also suffer from a lack of adequate management. The situation in Cambodia is somewhat similar, with costs over the period from 2005 to 2015 averaging \$22.4. However, this figure does not include a significant amount of spending on conditions that are not related to the MDGs, such as physical disabilities, largely brought about by recent armed conflict. In Cambodia, external budgetary support on a per capita basis would have to be even greater than in Bangladesh, at more than double the amount of domestically financed government expenditures.

**Table V.4. Cost and financing requirements for achieving the health-related Millennium Development Goals in Bangladesh**

	2005		2010		2015		Over the full period from 2005 to 2015			
	Annual total <sup>a</sup>	Per capita <sup>b</sup>	Annual total <sup>a</sup>	Per capita <sup>b</sup>	Annual total <sup>a</sup>	Per capita <sup>b</sup>	Overall total <sup>a</sup>	Average per year <sup>a</sup>	Average per capita per year <sup>b</sup>	Average percentage of GDP
<b>Domestically financed government expenditures</b>	499	3.3	1 260	7.5	2 175	12.0	14 056	1 278	7.6	1.4
<b>Required total external budgetary support</b>	1 252	8.2	2 231	13.2	2 793	15.4	23 789	2 163	12.9	2.3
<b>Total cost</b>	1 751	11.5	3 473	20.8	4 968	27.4	37 844	3 440	20.6	3.7

*Source:* United Nations Millennium Project, "Millennium Development Goals needs assessments: Country case studies of Bangladesh, Cambodia, Ghana, Tanzania and Uganda", unpublished paper for the United Nations Millennium Project, New York, 2004.

<sup>a</sup> In millions of United States dollars.

<sup>b</sup> In United States dollars.

**Table V.5. Cost and financing requirements for achieving the health-related Millennium Development Goals in Cambodia**

	2005		2010		2015		Over the full period from 2005 to 2015			
	Annual total <sup>a</sup>	Per capita <sup>b</sup>	Annual total <sup>a</sup>	Per capita <sup>b</sup>	Annual total <sup>a</sup>	Per capita <sup>b</sup>	Overall total <sup>a</sup>	Average per year <sup>a</sup>	Average per capita per year <sup>b</sup>	Average percentage of GDP
<b>Domestically financed government expenditures</b>	54	3.7	106	6.4	181	9.8	1 213	110	6.6	1.6
<b>Required total external budgetary support</b>	142	9.6	267	16.1	354	19.2	2 883	262	15.8	3.9
<b>Total cost</b>	196	13.2	373	22.5	535	29.0	4 096	372	22.4	5.5

Source: United Nations Millennium Project, "Millennium Development Goals needs assessments: Country case studies of Bangladesh, Cambodia, Ghana, Tanzania and Uganda", unpublished paper for the United Nations Millennium Project, New York, 2004.

<sup>a</sup> In millions of United States dollars.

<sup>b</sup> In United States dollars.

## B. INVESTMENT REQUIREMENTS IN THE ASIAN AND PACIFIC REGION

*The investments that need to be made could be within reach given efficient use of resources and greater attention to health*

As stated previously, spending more money does not guarantee better health outcomes. Resources need to be allocated efficiently and in a manner that ensures sustainability and universal access to essential health-care services. The fact remains that many countries in the ESCAP region, as elsewhere, are spending far too little on health and the poor are suffering as a consequence. Research shows that public spending on health care and the health status of the poor have a stronger positive relationship among low-income countries than in other countries.<sup>158</sup> Regional comparisons of spending are considered below, followed by a look at the health-care expenditure requirements and shortfalls of countries in the ESCAP region, given existing levels of spending.

A look at what regions are spending on health as a percentage of GDP shows considerable variations. At the regional level, East Asia and the Pacific and South Asia, at 5.0 per cent and 4.4 per cent respectively, spend less than any other region (see table V.6). Even more striking is the fact that in these parts of the world public or government expenditure is particularly low, at 1.9 per cent in East Asia and the Pacific and 1.1 per cent in South Asia. In the ESCAP region, a large proportion of private expenditure, which makes up the difference between the government outlay and the total, comes from out-of-pocket sources. In this context, the heaviest burden falls on the poor, who often become further impoverished by such spending.

<sup>158</sup> S. Gupta and others, "Public spending on health care and the poor", IMF Working Paper (Washington, D.C., IMF, 2001).

**Table V.6. Expenditure levels on health, by region**

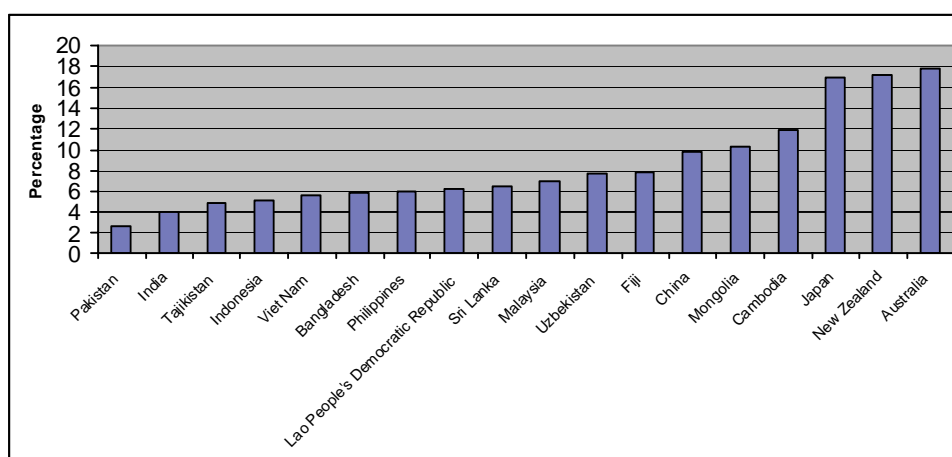
Region	Total health expenditure as a percentage of GDP	Public health expenditure as a percentage of GDP
East Asia and the Pacific	5.0	1.9
Europe and Central Asia	6.5	4.5
Latin America and Caribbean	6.8	3.3
Middle East and North Africa	5.6	2.7
South Asia	4.4	1.1
Sub-Saharan Africa	6.1	2.4

Source: World Bank, *World Development Indicators 2006* (CD-ROM), (Washington D.C., World Bank, 2006).

Significant variations also exist within the ESCAP region. China, for example spends 5.6 per cent of its GDP on health, while total per capita expenditure on health is \$61. In India and Indonesia, two other countries with a large proportion of the ESCAP region's poor, the figures are 4.8 per cent and \$27, and 3.1 per cent and \$30, respectively.<sup>159</sup> These figures would seem to be at a level, or in China's case more than, needed to deliver priority interventions. However, government spending on health is low and poverty and ill health persist in many parts of these countries.

A look at public health expenditure as a percentage of total government expenditure in selected countries in the ESCAP region shows a significant difference between developing and developed countries (see figure V.1). Developed countries spend over 15 per cent. The low levels of expenditure in most developing countries, at around 3-8 per cent, imply that more could be done to direct government expenditure to health.

**Figure V.1. Public health expenditure as a percentage of total government expenditure in selected ESCAP countries**



Source: World Bank, *World Development Indicators 2006* (CD-ROM), (Washington D.C., World Bank, 2006).

<sup>159</sup> WHO, *World Health Report 2006: Working Together for Health* (Geneva, WHO, 2006).

**India, Pakistan and Viet Nam could achieve universal coverage of basic health care over the next few years using domestic resources**

An ILO study<sup>160</sup> shows that within the ESCAP region India, Pakistan and Viet Nam could achieve universal coverage of basic health care over the period from 2006 to 2034. To do so, the amount of government expenditure on health as a percentage of total government expenditure should be raised to levels of approximately 15-20 per cent over the first 10 years, after which the percentage could be reduced. Bangladesh and Nepal, two least developed countries, would have to increase government expenditures on health to the point where they would exceed 50 per cent of total government expenditures. This would be very difficult to attain, and some commitment from the international community would be needed, at least for a period of transition. The study uses CMH figures of \$34-\$38 for the period from 2007 to 2015; using lower figures from the previous section would make universal coverage of basic health care more accessible in all five countries.

Although no specific studies have been undertaken for the ESCAP region, an approximate idea of its health-related investment requirements can be extrapolated from studies and experiences of countries in the region, notably Bangladesh, Cambodia, Mongolia and Sri Lanka, as well as other studies which look at large clusters of developing countries. The estimates below are relatively crude, as they do not consider population growth or epidemiological changes (covered in the following section). They look at overall and per capita government expenditure on health rather than total expenditure on health. The reason for focusing on government expenditure is that health is a public good, and the poor need to be protected as they often do not have enough income to allocate to health. Hence, as stated at the beginning of this chapter, Governments should ensure that investments are directed to providing universal coverage of good quality basic health care.

**Required additional annual spending on health for the least developed countries in the ESCAP region could be a relatively modest \$3.6 billion over the period 2007-2015**

Three scenarios are presented using WHO data.<sup>161</sup> Each considers government expenditure on health at average exchange rates and looks at the existing situation and the whole period from 2007 to 2015, applying existing spending levels (table V.7). The first scenario uses \$36 per capita, the median average figure from the CMH estimates of \$34-\$38 for the period from 2007 to 2015, and all of the 24 countries in the ESCAP region with government expenditure on health below this level. As nearly all of the countries with the largest populations in the region, namely Bangladesh, China, India, Indonesia and Pakistan, are included, the figure is substantially higher than those of others.

The second scenario uses \$20 per capita, a figure closer to alternative estimates from the previous section. In the ESCAP region 19 countries have spending below this level; with China excluded, the total population is considerably less than the group of 24 countries mentioned above. In the third scenario only the least developed countries are considered and the \$20 per capita figure is used. From the ESCAP region, six least developed countries, namely Afghanistan, Bangladesh, Bhutan, Cambodia, the Lao People's Democratic Republic and Nepal, have government expenditure on health below \$20 (the other least developed countries have significantly higher levels).

<sup>160</sup> ILO, Costing of basic social protection benefits for selected Asian countries: First results of a modelling exercise, Issues in Social Protection, Discussion Paper 17, September 2006.

<sup>161</sup> WHO, *World Health Report 2006: Working Together for Health* (Geneva, WHO, 2006).

**Table V.7. Calculating the health-care spending gap in the ESCAP region  
(Billions of United States dollars)**

	Existing annual situation			Total over the period between 2007 and 2015		
	Actual spending	Required spending	Spending gap	Actual spending	Required spending	Spending gap
<b>\$36 per capita requirement (24 countries in Asia and the Pacific)</b>	43.7	119.9	76.2	393.3	1,079.1	685.8
<b>\$20 per capita requirement (19 countries in Asia and the Pacific)</b>	14.4	39.8	25.4	129.6	358.2	228.6
<b>\$20 per capita requirement (6 least developed countries in Asia and the Pacific)</b>	0.9	4.5	3.6	8.1	40.5	32.4

The figures in the first two scenarios, especially those in the first, are relatively high. The reason is that they, as in all the scenarios, consider universal health-care coverage, which implies the whole population, rather than the population in need (as considered by CMH). They also look at only government spending and at existing levels projected forward. Nevertheless, in per capita terms the spending gap, especially when considering the \$20 per capita requirement, implies that the additional per capita spending that is needed is the relatively modest sum of \$5-\$15. Many countries should be able to achieve this level of spending by more efficiently using resources and allocating greater public expenditure to health as discussed in section D. For the six least developed countries mentioned above, which themselves could spend more, existing per capita government expenditure on health is between \$3 and \$9. To reach the \$20 level could be considered difficult at this stage and external assistance could help to fill the gap. The total estimated shortfall, at \$3.6 billion a year, is not such a great amount.

It should be remembered that the figure of \$20 is based on factors such as adopting pro-poor policies, as in the case of Mongolia and Sri Lanka, and sound levels of governance relative to GDP, as in the five-country study which includes Bangladesh and Cambodia. Other significant variations would arise when considering issues ranging from absorptive capacity to population growth rates, ageing trends, technological changes, patterns of disease and environmental change.

Other factors that influence costs include rugged terrain and extreme geographical isolation. For instance, estimated per capita cost for achieving universal

primary health care in Tajikistan is \$39 in 2015,<sup>162</sup> which is substantially higher than the equivalent figures for Bangladesh and Cambodia (\$27.4 and \$29.0 respectively) for 2015. The Pacific subregion is another area where costs may be high due to geographical isolation, although efficient and equitable delivery of health services is dependent on other factors (see box V.1).

#### Box V.1. Health-care financing in the Pacific subregion

Most populations in the Pacific island countries and territories have good access to primary health care, but the availability and quality of care are highly variable. Governments in the subregion are the main funders and providers of health-care services and some island States have limited private-sector capacity.

The share of GDP spent on health and the share of government expenditure in total health expenditure is generally high compared with other ESCAP countries, but these indicators do not reveal the true picture. Unit costs are high because of the high cost of transportation and communication in small island States. Governments in the subregion are required to provide the full range of services, even though the need for some specialist services is generally low. Governments also pay for some offshore treatments but these have high costs. Health spending by some Governments, although relatively high, is not sufficient to provide effective health care. Kiribati and Marshall Islands spend in excess of 13 per cent of GDP on health, but they have high rates of infant and maternal mortality, and low immunization coverage relative to many other countries in the subregion. Conversely, Fiji and the Cook Islands spend less than 4 per cent of their GDP on health, yet have lower infant and maternal mortality rates and higher immunization coverage than many other countries in the subregion.<sup>a</sup>

Similarly, high government health spending and lower private out-of-pocket contributions do not necessarily correlate with better health outcomes. The government's share in total health expenditure is lowest in Fiji (61 per cent) and Samoa (79 per cent) where health outcomes and health system performance indicators are favourable in both countries. Conversely, virtually all health-care expenditure in Kiribati and Marshall Islands is derived from government sources and yet health outcomes are worse than those in Samoa and Fiji.

It is clear that financing arrangements in the Pacific subregion need careful study in order to better identify the most efficient, effective and sustainable way of financing health care in the subregion. Socio-economic, political and cultural differences between individual Pacific island countries and territories may help explain the variable quality of health care. However, Governments generally provide the full range of services without a clear rationale of expected benefits, although it is clear that most of the morbidity and mortality in the subregion is due to a small number of conditions, and better implementation of fewer, proven cost-effective interventions can provide better health care and investment returns.

<sup>a</sup> WHO, *World Health Report 2006: Working Together for Health* (Geneva, WHO, 2006).

<sup>162</sup> United Nations Millennium Project, *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals* (New York, United Nations, 2005).

## C. IMPACTS OF DEMOGRAPHIC CHANGE AND CHANGING DISEASE PATTERNS ON HEALTH EXPENDITURES

The possible impact of demographic and epidemiological changes on the Asian and Pacific region, as discussed in chapter III, pose significant challenges to health-related funding needs. This is especially so regarding matters such as population growth, ageing, the rise in the prevalence of chronic diseases and the present and future threats of HIV/AIDS and avian influenza pandemics.

The World Bank estimates that East Asian and Pacific island economies are set to increase health spending by 37 per cent between 2005 and 2025, of which 15 percentage points are due to population growth and 22 percentage points to changes in the age-sex structure. Over this same period, spending in South Asia is set to increase by 45 per cent, of which 27 and 18 percentage points are due to population growth and age-sex structure changes respectively.<sup>163</sup> Figure V.2 depicts these scenarios in the context of all regions of the world.

**Countries in the Asian and Pacific region need to increase spending by two percentage points per year just to accommodate demographic changes**

**Table V.8. Effects of changes in population and age-sex structures on health spending, by region, 2005-2025**

Region	Percentage increase in health expenditures: 2005-2025		
	Total	Percentage increase owing to	
		Population increase	Change in age structure
East Asia and the Pacific	37	15	22
Europe and Central Asia	14	1	13
Latin America and Caribbean	47	25	22
Middle East and North Africa	62	37	25
South Asia	45	27	18
Sub-Saharan Africa	52	43	9

Source: P. Gottret, and G. Schieber, *Health Financing Revisited; A Practitioner's Guide* (Washington, D.C., World Bank, 2006).

Such spending increases mean that Governments would need to raise their health spending by around two percentage points per year just to accommodate demographic changes. It should be added that these figures represent the lower limits of the increases needed, because they do not take into consideration vital factors such as economic growth, inflation, the development of new technology, increased expectations and use of health systems, or the extent of insurance coverage. Furthermore, these estimates do not take into account the availability of new and expensive drugs to treat malaria, HIV/AIDS and the emergence of new diseases, such as avian influenza. The estimates are purely meant to provide policymakers with basic information on changes required in health delivery systems.<sup>164</sup>

<sup>163</sup> WHO, *World Health Report 2006: Working Together for Health* (Geneva, WHO, 2006).

<sup>164</sup> Ibid.



**Expenditures on disease prevention and health promotion are essential to ease the burden of chronic diseases**

The dependency ratio increases with population ageing, as there are relatively more older persons who need to be supported by those of working age. Unless there is greater participation of older persons in the labour force as a result of, among others, later retirement, the economic burden on those of working age will increase. Furthermore, with the ageing of populations the cost of health care rises considerably, as older persons are more likely to suffer from chronic conditions requiring treatment involving costly modern technologies and pharmaceuticals.

The potential burden of chronic diseases described in chapter III underlines the important role of preventing diseases and promoting good health. The main risk factors contributing to chronic diseases - unhealthy diets, physical inactivity and tobacco and alcohol consumption - can to a large extent be addressed by measures such as cost-effective prevention and health promotion campaigns.

Expenditures on disease prevention and health promotion vary considerably across countries of the ESCAP region, both in absolute and per capita terms. Among developing countries, Thailand stands out, investing 8.4 per cent of its total health expenditure on disease prevention and health promotion, which is one of the highest figures in the world. As a result, the country has enjoyed significant returns and benefits. Thailand's experience shows that there is great scope for social health insurance to invest in disease prevention and health promotion. The average level of expenditure on disease prevention is 3.82 per cent in 15 selected middle- and high-income countries where national health accounts are available, including five countries in the ESCAP region, namely Australia, Japan, the Republic of Korea, Thailand and Turkey.<sup>165</sup>

The figure is slightly high when applied to developing countries in the Asia-Pacific region. It would imply average investments of about \$3-\$4 per capita based on CMH estimates, or total annual investments ranging from \$12 billion to \$16 billion over the period 2007-2015 (lower figures - up to 50 per cent lower - would be derived based on alternative experiences and estimates mentioned in previous sections). These, like other estimates above, are relatively large amounts; however, given the potentially great financial savings and alleviation of human suffering they imply, there are economic and social imperatives for carrying them out.

**Emerging diseases pose a severe economic threat**

In addition to chronic diseases, communicable and emerging diseases pose significant threats to health-care systems. The region needs huge sums for the prevention and treatment of such diseases or conditions as malaria, tuberculosis and HIV/AIDS. However, the benefits of investing in health are that it not only reduces morbidity and mortality but also leads to considerable economic savings or gains in terms of higher attendance of workers and higher productivity and incomes. The investment requirements should also be measured against the damage such disease could potentially inflict on the region's economies.

A major new threat is the possibility that the current strain of avian influenza might mutate into a form capable of efficient human-to-human transmission. This could result in a pandemic that could kill anywhere between 5 million and 150

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<sup>165</sup> V. Tangcharoensathien and others, "Sustainable financing for prevention and health promotion: Issues and challenges", paper presented at the Sixth Global Conference on Health Promotion, Bangkok, 7-11 August 2005.

million people, depending on its severity. Economic losses in the Asia-Pacific region, taking into account both supply and demand shocks, could range from \$114 billion to \$296 billion (some 2.6 to 6.8 percentage points of GDP).<sup>166</sup> This means that considerable investment would be required to strengthen surveillance systems in animal and human populations and to finance contingency plans to counter a possible pandemic. Billions of dollars have been pledged by donors for this purpose. The point illustrated is that, while comprehensive strengthening of health systems would help in tackling such exigencies more efficiently, there will always be a need for extra funding to cover the threat of newly emerging diseases.

The burden of HIV/AIDS also poses significant threats. Per capita costs for the health-related MDG attainment in countries with high HIV prevalence could be at the upper range of the cost estimates set by the United Nations Millennium Project, that is, \$13-\$25 per capita in 2006, rising to \$30-\$48 in 2015, or some 50 per cent greater than those at the lower end of the range.<sup>167</sup> It should be stated, though, that such additional burdens would be felt mainly by countries in sub-Saharan Africa. In the Asia-Pacific region the situation is not as severe. Nevertheless, in 2003, countries in the region needed over \$1.5 billion to finance comprehensive responses to HIV/AIDS; however, the amount available from all sources combined, including the public sector, was only \$200 million. It is also estimated that countries in the Asian and Pacific region will need to invest \$5.1 billion annually from 2007 to 2010 to finance a comprehensive response. Such investments, however, could bring about annual savings to the region of \$2 billion by 2010.<sup>168</sup>

The uncertainties linked to demographic changes, and in particular epidemiological changes, mean that estimates of investment requirements are likely to remain vague. However, the message that they deliver is still clear: considerable scaling up of such expenditure is needed in the ESCAP region. Because the spending and resources of many countries in the Asian and Pacific region remain too low, there is a need to find supplementary financial resources.

## D. WAYS TO FINANCE THE INVESTMENT GAP

The role of Governments in the domestic provision of health services as a public good is fundamental; in addition, external sources of funding are crucial to expand health-care coverage and help close the resource gap faced by many countries in the ESCAP region, particularly poorer countries and the least developed countries. The overall resource gap for all the MDG investment in Asia and the Pacific is estimated at over \$200 billion per year,<sup>169</sup> and this is in the context of over \$3 trillion of reserves and the highest saving levels in the world.

Relating available domestic and international resources to achieving the MDGs is not straightforward. In most cases, specific categories of public expenditure and

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<sup>166</sup> ADB, *Potential Economic Impact of an Avian Flu Pandemic on Asia* (ERD Policy Brief, 2005), pp. 4-5.

<sup>167</sup> United Nations Millennium Project, *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals* (New York, United Nations Millennium Project, 2005).

<sup>168</sup> ADB/UNAIDS, *Asia-Pacific Opportunity: Investing to Avert an HIV/AIDS Crisis* (ADB/UNAIDS Study Series, 2004).

<sup>169</sup> ESCAP, *UNESCAP and Financing for Development* (Bangkok, ESCAP, May 2005).

aid cannot be linked directly to a specific goal, target or indicator. Many categories of public expenditure and aid cut across indicators, targets and even goals. Resources spent on improving access to water and sanitation, for example, will contribute not only directly to achieving target 10, but also indirectly to reaching target 5 (reduce child mortality).

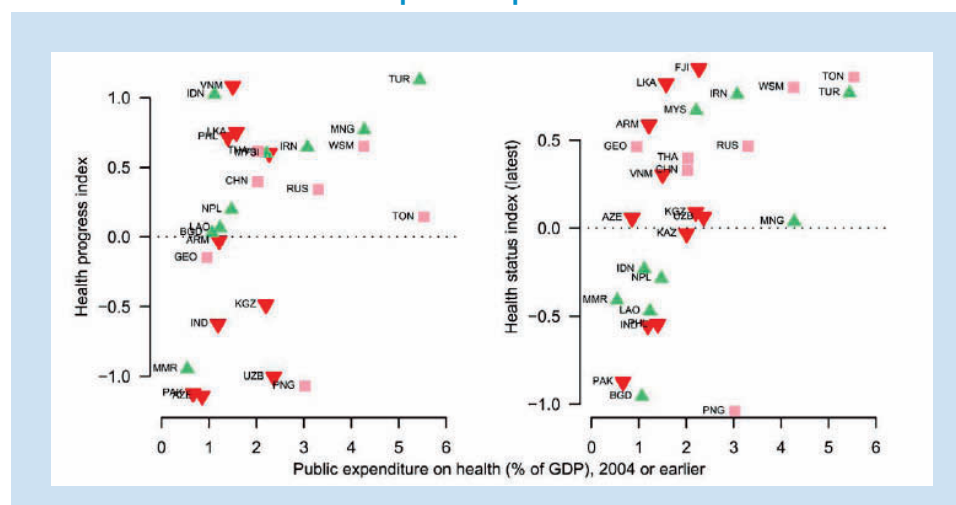
An equally important point, as already stated, is that while resources are important, the efficiency with which they are being utilized is equally important. This, again, is difficult to measure through cross-country comparisons. However, too many of the countries that are obtaining low scores with regard to the progress they are making towards achieving their education and health targets are committing only a small proportion of their GDP to these sectors. They need to allocate more resources to health and use them more efficiently. In the case of some countries, external assistance may be needed.

## 1. USE OF DOMESTIC RESOURCES

**Several countries in the Asian and Pacific region need to make a greater effort to promote public health**

The public expenditure that countries allocate to health can serve as a measure of their effort towards achieving the health-related MDGs. The countries that do less than others overall are also those that spend relatively small shares of GDP on health. Figure V.3 indicates that the countries most in need should be doing more themselves.

**Figure V.2. Health-related Millennium Development Goals and public expenditure**



Source: ESCAP, UNDP, and ADB, *Millennium Development Goals: Progress in Asia and the Pacific 2006* (2006) available at: (<http://www.mdgasiapacific.org>)

From the above figure, it can be seen that countries with low indices for health progress tend to have low public expenditure on health. Conversely, countries spending more on health tend to have higher health progress indices. The same relationship exists between health status indices and public expenditures on health. In particular, countries with high infant and child mortality rates have low levels of government spending on health as a percentage of GDP. This all points to the significance of increasing the level of investment in health.

These differentials in spending on health care reflect varying levels of GDP, and the share of GDP raised in tax and non-tax revenues. Above all, they reflect a political decision by Governments on how much to devote to health care. Additional resources can be generated through higher levels of taxation and/or directing more government spending to health, for instance by ensuring that health expenditures increase at rates greater than GDP growth in countries where expenditure levels are low. However, for this to be possible, political commitment and administrative will are necessary. Development agencies can help by offering technical support on tax reform, encouraging Governments to increase their public expenditure allocations for health and offering financial assistance to ease adjustment costs.<sup>170</sup>

**Political commitment, more than financial resources, is the key determinant of health spending**

Higher government expenditure on health, however, may need complementary services that are within and outside the health sector, such as transportation links to hospitals and easy access to water and sanitation. Achieving the health-related MDGs can be expedited by policies and institutional capacities that enhance growth, including through trade, infrastructure development and attracting investment.

The role of Governments does not stop at providing financial resources. They also need to create the conditions for institutions — in the fullest sense of the word — to invest in or deliver social services. Private spending can also play a role, whether in terms of private insurance or out-of-pocket expenditure. The latter, though, can be damaging, especially in lower-income countries, and private insurance tends to be more prevalent and effective in higher-income countries. Nevertheless, developing countries can generate more favourable conditions for private insurance to complement government health care by developing financial markets and regulatory frameworks.

Stepped-up efforts by the developing countries in the region have to be complemented by support from the international community. This is recognized in Goal 8, which is aimed at fostering a global partnership for development through, among others, the removal of trade barriers, greater private foreign investment and allowing for easier movement of skilled personnel. In addition, many parts of Asia and the Pacific receive low levels of official development assistance (ODA) relative to their level of economic and social development and the extent to which they are making progress towards achieving the MDGs. While private enterprises are increasingly playing an important role in the health sector through, among others, their philanthropic activities, the role of Governments cannot be overemphasized.

## 2. THE ROLE OF TRADE AND AID

The efforts of developed countries to assist the developing countries in the region to achieve the MDGs are assessed by comparing the allocation of ODA and duty-free market access with their overall progress and status in achieving the MDGs. Countries most in need are not doing enough themselves but, at the same time, they are not receiving enough assistance from developed countries to achieve the MDGs.

**More access to developed country markets would assist regional progress towards achieving the health-related MDGs**

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<sup>170</sup> A. Wagstaff and M. Claeson, *Millennium Development Goals for Health: Rising to the Challenges* (Washington, D.C., World Bank, 2004).

Trade in goods, services, capital and labour has contributed considerably to the development of many countries in the region. It is clear that developed countries could do much more to maintain this momentum by increasing the share of goods they will accept from developing countries without imposing taxes on them.

Foreign aid, or ODA, including that of multilateral institutions, such as the World Bank, the Asian Development Bank and the United Nations Development Programme, as well as bilateral aid from donor Governments, has contributed significantly to the progress of many countries in the Asia and the Pacific. Japan's reconstruction was supported by World Bank funding between 1953 and 1966; the Republic of Korea and Taiwan Province of China received aid from the United States during the Cold War, and South-East Asia and some Pacific island countries have been more recent aid beneficiaries.<sup>171</sup>

Still, developed countries have yet to come even close to the targets the international community has set for ODA. In a report entitled "Road map towards the implementation of the United Nations Millennium Declaration" (A/56/326), the Secretary-General, urged industrial and donor countries to provide ODA equal to 0.7 per cent of their GNP. The Monterrey Consensus of 2002 adopted the same goal. Denmark, Luxembourg, the Netherlands, Norway and Sweden are examples of countries which have net ODA rates of over 0.7 per cent of GNI. Nevertheless, countries of the Development Assistance Committee (DAC), which are also members of the OECD, provided \$69 billion to developing countries in 2003,<sup>172</sup> a large amount, but only 0.25 per cent of their combined GNI.

The Zedillo Report<sup>173</sup> states that achieving the MDGs would require an extra \$50 billion of ODA a year, close to double the amount provided at the time the report was published in 2001. The Millennium Project Report recommended that developed countries raise their ODA to 0.54 per cent of GDP by 2015, which is equivalent to approximately \$120 billion per year,<sup>174</sup> a figure far beyond the shortfall estimates in section B. It also suggested that aid be complemented by greater debt relief as an important way of stimulating economic growth and reducing poverty.

ODA from DAC members directed to health increased considerably over the period 2000-2004 rising from \$1,579 million to \$3,373 million.<sup>175</sup> However, figure V.4 shows that health as a proportion of ODA in regional terms is lowest in the Pacific (Oceania) and it is second lowest in Asia, if Europe is excluded.

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<sup>171</sup> H. Soesastro, *Sustaining East Asia's economic dynamism: How aid worked* (Jakarta, Centre for Strategic and International Studies, 2004).

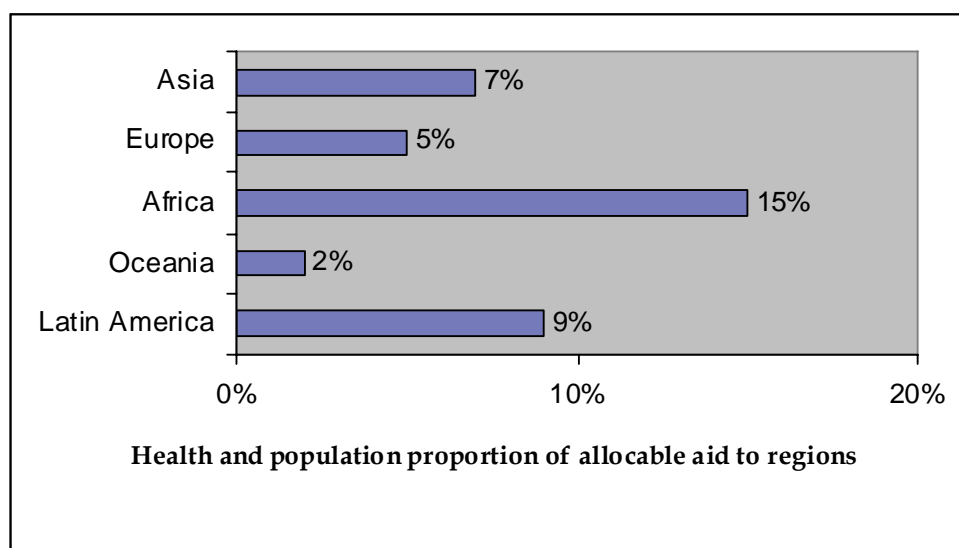
<sup>172</sup> OECD, *Managing aid: Practices of DAC member countries* (Paris, OECD, 2005).

<sup>173</sup> United Nations, *Report of the high level panel on financing for development (Zedillo Report)* (A/55/1000), available at: <<http://www.un.org/reports/financing/>>.

<sup>174</sup> United Nations Millennium Project, *Investing in development: A practical plan to achieve the Millennium Development Goals* (New York, United Nations, 2005).

<sup>175</sup> <http://stats.oecd.org/wbos/default.aspx?DatasetCode=TABLE5>

**Figure V.3. Health aid as a percentage of total assistance, by region, 2002**



Source: H. White, "Trends in the volume and allocation of official flows from donor countries" International

Review of Economics and Finance (2003), vol. 13, pp. 233-244.

The share of ODA in overall health expenditure is sizable in several low-income countries of the ESCAP region (see table V.8), but the share of GDP allocated to health by some of these countries is small and aid levels do not necessarily correlate with progress towards achieving MDGs. Aid also needs to be used in an appropriate manner as discussed in the following section.

**Aid levels do not necessarily correlate with progress towards achieving MDGs**

**Table V.9. Contribution of official development assistance as a percentage of overall health expenditure in selected ESCAP countries**

Country	Contribution of ODA as a percentage of overall health expenditure
Afghanistan	11
Azerbaijan	8
Bhutan	35
Cambodia	20
Kyrgyzstan	13
Lao People's Democratic Republic	21
Mongolia	15

Source: Asian Development Bank, ADB Policy for the Health Sector (Manila, Asian Development Bank, 2005).



### a. Benefits and shortcomings of aid

Measuring the macroeconomic and development impact of any external financial flow - for example, aid, debt relief and foreign direct investment - is complicated by the number of variables (direct and indirect) and the lack of accurate data. Still, a review of relevant literature found that the overwhelming majority of recent empirical studies concluded that aid does indeed increase economic growth and many studies show that, in the absence of aid, economic growth would be lower.<sup>176</sup>

On the downside, although aid can bring about an increase in public expenditure, it can also lead to reduced tax revenues and increases in public sector debt. Furthermore, certain studies have discovered that aid can be subject to diminishing returns. Thus, aid may be positively related to economic growth up to a certain level (the turning point being 15-45 per cent of GDP); thereafter aid is negatively related to economic growth.<sup>177</sup> Beyond a certain point, the level of aid may elevate the real exchange rate, which can create a disincentive to producing tradable goods (the "Dutch disease" effect) and limit export-led growth.

Under certain circumstances aid creates an environment in which government funds are spent on consumption rather than on economic development, which risks not only higher rates of exchange but also corruption. These factors, plus high tariffs, can hinder manufacturing for the domestic market and the export of agricultural products. This may have a knock-on effect of reducing employment opportunities, skills development and entrepreneurship outside the government sector and encourage dependence on a welfare state. A partial solution is to remove aid from government budgets and agree clear terms between donor and recipient on the use, disbursement, monitoring and regular auditing of aid.<sup>178</sup>

**To reduce inequality, aid allocated to social services must be spent in ways that strengthen local systems**

There are other problems associated with ODA. Many large aid projects factor in ways to spin back economic benefits to donor countries. Weak governance can undermine the sustainability of development projects. A substantial portion of aid is consumed by large infrastructure costs in urban areas and it is often the case that only a small proportion of aid money filters down to those who need it most. To reduce inequity, aid allocated to social services must be spent in ways that strengthen local systems and reach the most marginalized communities. In Papua New Guinea, where Australia allocates about 20 per cent of its ODA, much of it is now tied to strengthening law-making, law-enforcement and financial management, although a proportion is also allocated to social services, principally health and education.<sup>179</sup>

Despite such shortcomings, most macroeconomists believe that the benefits of scaled-up investments in the MDGs, brought about by increased ODA flows, far outweigh the negative macroeconomic implications. By improving infrastructure

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<sup>176</sup> T. Addison, G. Mavrotas and M. McGillivray, "Aid, debt relief and new sources of finance for meeting the Millennium Development Goals", Research Paper No.2005/09 (United Nations University-WIDER, Helsinki, 2005).

<sup>177</sup> Ibid.

<sup>178</sup> H. Hughes, "Aid has failed the Pacific," Centre for Independent Studies, Issue Analysis, No. 33, 7 May 2003.

<sup>179</sup> T. Duke, "Inequity in child health: What are the sustainable Pacific solutions?" *The Medical Journal of Australia*, 2003, vol. 181, No 11/12, pp. 612-614.



and human capital, most MDG-related interventions can reduce the costs of doing business.<sup>180</sup>

#### **b. Ways to enhance the effectiveness of aid**

Donors are increasingly taking into account the effectiveness of aid before allocating their ODA. Interestingly, countries that receive less than 5 per cent of their GNI in aid, including Bangladesh, Indonesia, Myanmar and Pakistan, also spend relatively small amounts of their own resources on health. However, a number of factors can significantly enhance the benefits of assistance.

Making aid predictable helps recipient countries to avoid fiscal instability. The potentially disruptive effects of conditionality can be mitigated by coordinating donor assessments of performance with budget cycles and applying conditions with a lag.<sup>181</sup> The Sustainability of development work can be enhanced by an understanding that recipient Governments take over responsibility for funding after a mutually-agreed period of time. Long-term sustainability is also promoted by providing support to local training institutions rather than incorporating unsustainable training in specific aid projects. A portion of the aid budget could be earmarked for building capacity in key areas by financially supporting individuals or groups committed to collaboration in ways that are appropriate to local societies. Developing capacities related to the management of aid is needed to improve the way aid is used.

*Predictable aid helps  
recipient countries to  
avoid financial  
disruption*

The main challenges to managing donor assistance effectively include the following:<sup>182</sup>

- (a) Establishing an appropriate legal and policy framework for development programmes;
- (b) Improving public awareness and understanding of development issues;
- (c) Allocating development funds appropriately;
- (d) Improving coordination with other stakeholders;
- (e) Managing human resources for development;
- (f) Developing effective organizational structures;
- (g) Monitoring and evaluating programmes and conducting independent reviews;
- (h) Promoting partnership and decentralization.

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<sup>180</sup> A. Wagstaff and others, "Millennium Development Goals for health: What will it take to accelerate progress?", in D.T. Jamison and others, eds., *Disease Control Priorities in Developing Countries*, second edition (New York, Oxford University Press and Washington, D.C., World Bank, 2006).

<sup>181</sup> P. Gottret and G. Schieber, *Health Financing Revisited: A Practitioner's Guide* (Washington, D.C., World Bank, 2006).

<sup>182</sup> OECD, *Managing Aid: Practices of DAC Member Countries* (Paris, OECD, 2005).

Increased domestic resource mobilization to achieve the MDGs could mean a fall in the share of ODA in financing incremental investments (the MDG financing gap) from 59 per cent in 2006 to 32 per cent by 2015.<sup>183</sup> However, attention to these challenges can reduce the possibility of ODA leading to lowered domestic financing and ensure that providing external funds actually increases overall expenditures on health.<sup>184</sup>

Finally, the effectiveness of ODA could be significantly enhanced by greater donor coordination, policy coherence and emphasis on approaches that are more sector-wide (including improved policymaking and budget management in recipient countries), as well as multisectoral. This can be done by capturing all funding sources and expenditures and placing decisions on resource allocation into medium-term budget and expenditure frameworks that are based on national priorities and coordinated with sectors other than health.<sup>185</sup>

## E. CONCLUSIONS AND RECOMMENDATIONS

**Multisectoral approaches to enhance investments in health should be consistently planned and implemented**

In the Asia-Pacific region the total investment requirements for health vary according to the estimates that are used. Using CMH figures of over \$30 per capita spending on health, the challenges seem quite daunting. However, figures closer to \$20 per capita are more accessible. In fact, for many countries this is manageable with greater spending on health and more efficient allocation of resources. Even for the least developed countries of the ESCAP region it would imply an additional investment need of a modest \$3.6 billion annually, or \$32.4 billion over the period 2007-2015.

Closing the financing gap is possible, but only with greater and more cost-effective use of both domestic and external resources, especially ODA. Commitments to investments need to be maintained by donor countries, while recipient countries need to develop carefully formulated, coherent and consistent policies that ensure the most equitable and cost-effective use of resources.

A sector-wide approach to planning and implementing interventions for the health-related MDGs should be emphasized in order to increase health sector coordination, strengthen national leadership and ownership and enhance countrywide management and delivery systems. Plans should address both prevention and treatment in order to cope with changing demographic and epidemiological patterns, as well as other variables. Multisectoral approaches to enhance investments in health should be consistently planned and implemented.

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<sup>183</sup> United Nations Millennium Project, *Investing in Development: A Practical Plan to Achieve the Millennium Development Goals* (New York: United Nations, 2005).

<sup>184</sup> A. Wagstaff and others, "Millennium Development Goals for health: What will it take to accelerate progress?" In D.T. Jamison and others, eds., *Disease Control Priorities in Developing Countries*, second edition (New York, Oxford University Press and Washington, D.C., World Bank, 2006).

<sup>185</sup> P. Gottret and G. Schieber, *Health Financing Revisited: A Practitioner's Guide* (Washington, D.C., World Bank, 2006).

The investment estimates highlight the importance of quantifiable data, something which can encourage action in terms of greater investments and expenditures. Attention to developing solid, evidence-based policies through data collection, as well as to issues such as accountability, monitoring and evaluation can go hand-in-hand with building and enhancing the capacity of health-related human resources and infrastructure to improve the delivery of health care to all.

Nevertheless, without attention to the quality of health-care services, as well as issues of equity, resources are not likely to be used in the most efficient manner. Strategic policies and plans therefore need to be informed by the participation of all stakeholders. These include comprehensive strategies to tackle HIV/AIDS and targeting and managing chronic disease risk factors in an integrated and multisectoral manner that is both financially more cost-effective and more effective in improving health outcomes.



## CHAPTER VI

# HEALTH AND TRADE LINKAGES: REGIONAL PERSPECTIVES

### INTRODUCTION

**P**revious chapters considered the changes that need to be made in the functioning of health systems and their financing to ensure sustainable delivery of effective health services. Focusing on the objective of affordable access to health care and medicines, this chapter explores the challenges and opportunities posed by trade liberalization and pharmaceutical developments around the Asian and Pacific region.

Apart from domestic health sector-specific policies and regulations, a variety of international commitments, rules and practices influence a country's ability to provide effective health-care coverage to the whole population. These cover, among others, trade and investment in health-care services and products, including pharmaceuticals. With increasing globalization, the linkages between health and trade are becoming more complex and affecting performance of health systems in a more direct manner.

The first part of this chapter looks at the region's pharmaceutical development, production and distribution in the ESCAP region. It explores supply and demand factors and evaluates the impact of domestic policies and international trade on the region's ability to supply essential drugs at affordable prices.

The chapter finds evidence of strong potential in emerging sectors, such as biotechnology, bio-informatics and generic drugs. However, for the region to make sustainable progress towards affordable access to drugs, it requires coherent policies and practices that will assist in overcoming a number of supply- and demand-driven constraints. These include policies conducive to productive R and D, and innovation in areas relevant to the region; balanced implementation of intellectual property rights protection regimes; fair competition; and public-private sector partnerships. The chapter highlights policy options and suggests how regional cooperation could assist in providing affordable access to medicines.

The second part of the chapter delves into trends in cross-border health services. Using the WTO General Agreement on Trade in Services (GATS) as a framework for discussion, the chapter explores the challenges and opportunities posed by the cross-border trade in health services. It also explores the matter of "medical travel" in the region in detail. It identifies a number of areas for further study and presents a set of policy recommendations for maximizing the positive aspects and minimizing the negative ones, in terms of access to health care. These include suggestions for regional cooperation on key issues.

**Of the people worldwide without access to essential medicines, 60 per cent live in the ESCAP region**

## A. THE PHARMACEUTICAL INDUSTRY AND ITS ROLE IN ENSURING AFFORDABLE ACCESS TO DRUGS IN THE ASIAN AND PACIFIC REGION

The Asia-Pacific region has the largest number of people without access to essential medicines. It is estimated that worldwide around 1.7 billion do not have access to essential medicines and 60 per cent of them are in the ESCAP region.<sup>186</sup>

This section analyses certain key issues affecting access to essential medicines in the Asia-Pacific region and considers a number of policy options. These key issues include capacity and policy environments for basic research and local production for effective drug development and marketing. They also include factors such as quality assurance, costs, pricing and controls, competition policy, trade policy environment and demand-side factors, such as knowledge and health-seeking behaviour of consumers and rational prescribing practices.

### 1. STATISTICAL BACKGROUND<sup>187</sup>

#### a. Market

The world pharmaceutical market was valued at \$605 billion in 2005 (table VI.1). The Asian and Pacific region which accounts for three fifths of the world's population, has a share of around 18 per cent of the global pharmaceutical market. Japan contributes 11.4 per cent and the rest of the ESCAP region contributes only 6.6 per cent of that market. In contrast, North America and Europe contribute 44 and 30 per cent, respectively.

**Table VI.1. World pharmaceutical market, by region**

Country/ Region	2004 (in billions United States dollars)	2005 (in billions United States dollars)	Global share of sales in 2005 (percentage)
North America	249.0	268.8	44.4
Europe	169.2	180.4	29.8
Japan	66.1	69.3	11.4
Oceania	7.1	7.7	1.3
Commonwealth of Independent States	4.2	5.0	0.8
South-East Asia	25.3	28.8	4.6
Latin America	24.4	26.6	4.4
South Asia	6.6	7.2	1.2
Africa	6.3	6.7	1.1
Middle East	4.7	4.9	0.8
<b>Total global market</b>	<b>562.9</b>	<b>605.4</b>	<b>100</b>

Source: Market prognosis, provided by IMS Health (compilation of regional and country level statistics), in WHO, Public health: Innovation and intellectual property rights- report of the commission on intellectual property rights, innovation and public health (Geneva, WHO, 2006).

<sup>186</sup> WHO, World Medicines Situation (Geneva, WWHO, 2004), table 3.7.

<sup>187</sup> Accurate and up-to-date statistics on pharmaceutical expenditures is unavailable, especially from developing countries. Up-to-date and reliable data on expenditures on research and development spending, per capita pharmaceutical expenditures and research spending are available only up to 2001. Industry information has thus been used for figures related to pharmaceutical production and to estimate the size of the market.

This large variation in consumption of pharmaceuticals is further highlighted by the comparison in per capita spending between high, middle and low-income countries (see table VI.2).

**Table VI.2. Per capita pharmaceutical spending by income clusters, in United States dollars, 1990-2000**

Income cluster <sup>a</sup>	Measured minimum		Measured maximum		Average expenditure	
	1990	2000	1990	2000	1990	2000
High-income	50	84	330	549	240	396
Middle-income	2	4	79	198	18	31
Low-income	<0.5	0.6	19	26	3.6	4.4

Source: WHO, *World Medicines Situation* (Geneva, WWHO, 2004).

<sup>a</sup> Countries have been clustered according to the World Bank classification, with high income countries having an annual per capita income above \$9,265 and middle income countries having income between \$756 and \$ 9,265.

These disparities are also reflected in the ESCAP region, where 28 out of 39 countries for which data were available had per capita expenditure on pharmaceuticals of \$20 or less. Among high-income countries in the region, per capita expenditure varied from \$92 to \$528.<sup>188</sup> In low-income countries in the ESCAP region, relatively low expenditure per capita could be attributed mainly to low access to health care in general and essential drugs in particular. Another contributing factor may be the differences in patterns of consumption of originator or patented drugs, and generic drugs. WHO data reveals that drug consumption in higher income countries is somewhat skewed towards more expensive drugs, with two thirds of all the drugs consumed in those countries consisting of originator or patented brands. They made up 40 per cent of drug consumption in middle-income countries and around 30 per cent in low-income countries.<sup>189</sup>

*In low-income countries in the ESCAP region, relatively low per capita expenditure could be due to low access to health care in general and essential drugs in particular*

## b. Production

Data available from industry sources for the year 2004 show that Europe, the United States and Japan accounted for 85.9 per cent of the production of pharmaceuticals on a world-wide basis. In the ESCAP region, Japan contributed 10.8 per cent of these production levels (see figure VI.1).<sup>190</sup>

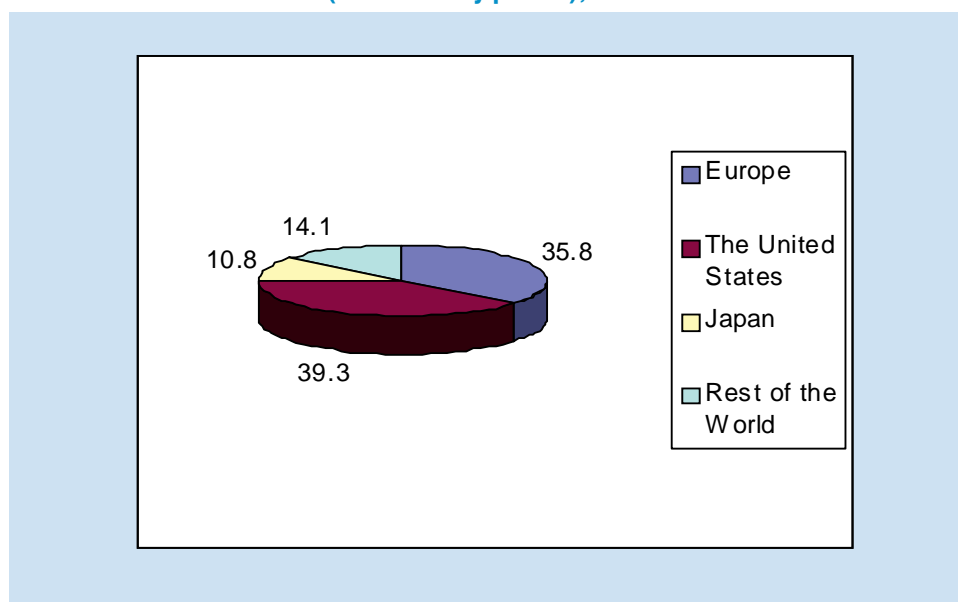
<sup>188</sup> WHO, *World Medicines Situation* (Geneva, WHO, 2004), annex table 2, data for year 2000.

<sup>189</sup> WHO, *World Medicines Situation* (2004), Page 35.

<sup>190</sup> European Federation of Pharmaceutical Industries and Associations, *The Pharmaceutical Industry in Figures- 2006*, available at: [http://www.efpia.org/6\\_publ/infigures2006.pdf](http://www.efpia.org/6_publ/infigures2006.pdf) accessed on 1 October 2006.



**Figure VI.1. Breakdown of world pharmaceutical production (at ex-factory prices), 2004**



Source: Adapted from European Federation of Pharmaceutical Industries and Associations, 2006 *The Pharmaceutical Industry in Figures 2006*, available at: [http://www.efpia.org/6\\_publications/infigures2006.pdf](http://www.efpia.org/6_publications/infigures2006.pdf) accessed on 1 October 2006

**Intraregional trade in pharmaceuticals in the Asia-Pacific region has not reached its full potential**

### c. International trade in pharmaceuticals

The global trade in pharmaceuticals reached almost \$271.86 billion in 2005 and is dominated by the industrialized countries. The European Union accounted for 70.2 per cent of global exports and 57.2 per cent of imports, whereas the United States accounted for 9.5 per cent of exports and 14.4 per cent of imports. A significant proportion of European Union trade consisted of intra-European Union trade. Data show that Asia exported pharmaceutical products worth \$16.8 billion and imported pharmaceutical products \$24.7 billion, making it a net importer.<sup>191</sup>

Seven countries in the region feature in the top 15 exporters of pharmaceutical products globally. However, the share of global exports is low, ranging from 1.4 per cent for China to 0.2 per cent for the Republic of Korea. Similarly, eight ESCAP member countries are among the top 15 importers of pharmaceutical products globally, but here too, the proportion of global imports they absorb is low, ranging from 3.0 per cent for Japan to 0.5 per cent for China.<sup>192</sup>

Levels of intraregional trade in pharmaceuticals are low in countries in the Asian and Pacific region. On average, only 32 per cent of Asia's pharmaceutical exports are to other countries in the region. China exports 34.4 per cent of its pharmaceutical products to other Asian countries, and imports 23.8 per cent from

<sup>191</sup> WTO, *International Trade Statistics* (Geneva, WTO, 2006), table A.10 - figures for 2005.

<sup>192</sup> Ibid, table IV.40.

other Asian countries. Japan sources only 6.7 per cent of its pharmaceutical imports from other Asian countries, and it sends 18 per cent of its exports to other Asian countries.<sup>193</sup>

#### d. Capacity for innovation and investment in research and development

Of 188 countries in the world surveyed by WHO, only 10 are estimated to have a sophisticated pharmaceutical industry with a significant research capacity.<sup>194</sup>

In 2001, an amount of \$106 billion was spent globally on health R and D, representing 3.5 per cent of total health expenditures worldwide (table VI.3). High-income countries accounted for 96 per cent of the total, low- and middle-income countries accounted for only 4 per cent. However, more recent data may indicate a change, with a number of countries in the region investing more in research, especially in the field of biotechnology.

**Table VI.3. Estimated global health research and development funding**

	In billions of United States dollars	Percentage
<b>Total</b>	<b>105.9</b>	<b>100</b>
Total public sector	45.6	44
Total private sector	59.3	56
<i>Total private for profit</i>	<i>51.2</i>	<i>48</i>
<i>Total private not for profit</i>	<i>8.1</i>	<i>8</i>
<b>Total high-income countries</b>	<b>101.6</b>	<b>96</b>
Public sector	44.1	42
Private sector	57.6	54
<i>Private for profit</i>	<i>49.9</i>	<i>47</i>
<i>Private non for profit</i>	<i>7.7</i>	<i>7</i>
<b>Total lower middle-income countries</b>	<b>4.3</b>	<b>4</b>
Public sector	2.5	2
Private for-profit sector	1.8	2

Source: Global Forum for Health Research, Monitoring financial flows for health research. Geneva, quoted in WHO, *Public health: Innovation and Intellectual Property Rights (2006)* the report of The Commission on Intellectual Property Rights, Innovation and Public Health (WHO, Geneva, 2006).

*Some countries in the Asia-Pacific region, such as China and India, have emerged as leading producers of pharmaceutical ingredients and medicines*

## 2. EMERGING CAPACITY FOR PHARMACEUTICAL PRODUCTION AND RESEARCH IN THE REGION

Countries in the ESCAP region, such as China and India, have the capacity for innovation and have emerged as the leading producers of active pharmaceutical ingredients in the regional market. They are now also identified as competitors for a share of the global market. However, they are not the only ones in the region with

<sup>193</sup> Ibid, tables A.13 and 14.

<sup>194</sup> WHO, *World Medicines Situation* (Geneva, WHO, 2004), figure 1.2.

a significant pharmaceutical capacity (see table VI.4). Australia and the Russian Federation have also established innovative research and manufacturing capacities. Indonesia, Malaysia, the Philippines, Thailand and Turkey have significant generic drug manufacturing capacity. The Republic of Korea has well-developed manufacturing and research facilities, especially in the field of biotechnology, while Singapore has also invested substantially in biotechnology-related R and D.<sup>195</sup> Central Asian countries were dependent in the past on centralized drug supplies, but the dissolution of the former Union of Soviet Socialist Republics led to severe shortages of drugs and medicines. However, despite resource constraints, some Central Asian countries have developed some manufacturing capacity through joint ventures and by offering tax concessions.<sup>196</sup> Most Pacific island countries have no manufacturing capacity in pharmaceuticals.

**Table VI.4. Capacity of the pharmaceutical industry of selected countries in the Asia-Pacific region**

Stage of development	Country
Sophisticated industry, sophisticated research	Japan
Innovative capability and well-developed industry	Australia, China, India, Republic of Korea and Russian Federation
Ability to produce active ingredients and finished products	Bangladesh, Indonesia, Malaysia, New Zealand, Pakistan, Philippines, Singapore, Thailand and Turkey
Finished products from imported raw materials	Myanmar, Nepal, Sri Lanka, Viet Nam and some Central Asian countries
No manufacturing capacity <sup>a</sup>	Bhutan, Cambodia, Lao PDR, Maldives and Pacific island countries

Source: WHO, *World Medicines Situation* (Geneva, WHO, 2004), K. Balasubramaniam, "Access to medicines and public policy safeguards under TRIPS", paper presented at the multi-stakeholder dialogue on Trade, Intellectual property and Biological resources in Asia, Bangladesh, 19-20 April 2002, available at: <http://www.ictsd.org/dlogue/2002-04-19/Balasubramaniam.pdf>, accessed on 15 January 2007 and ESCAP.

<sup>a</sup> Countries with no research and manufacturing capacity in conventional drugs are likely to have or develop capacity in traditional medicines, and their transformation into new drugs, provided proper policies and measures for building such capacity are implemented.

**A number of regional players have entered the field of pharmaceutical research thanks to biotechnology-based R and D**

So far, the concentration of investment and capacity for drug R and D in high-income countries had resulted in neglect of tropical diseases and diseases common in the developing world. Studies reveal that of the 1,223 new chemical entities commercialized from 1975 to 1997, 379 (30.9 per cent) could be considered therapeutic innovations but only 13 (1 per cent) of these are for tropical diseases. The reasons could be attributed to the costs and risks associated with R and D relative to low purchasing power in developing countries shifts to more profitable production lines and competition from reverse engineering in countries without product patent protection.<sup>197</sup> However, recently biotechnology-based R and D has allowed a number of regional players to enter the field and there are encouraging

<sup>195</sup> WHO, *World Medicines Situation* (Geneva, WHO, 2004), page 6.

<sup>196</sup> WHO, on behalf of European Observatory on Health Systems and Policies: *Regulating Pharmaceuticals in Europe: striving for efficiency, equity and quality* (WHO, 2004).

<sup>197</sup> Bernard Pecoul and others, "Access to essential drugs in poor countries-a lost battle", *JAMA*, 27 January 1999, vol. 281, No. 4.

signs that biotechnology could provide the platform for generating the capacity for pharmaceutical research in many countries in the ESCAP region.

#### **Box VI.1. Biotechnology: New hope for capacity-building in research and development in Asia and the Pacific**

The Asian and Pacific region is focusing increasingly on biotechnology. Revenues from biotechnology were \$3 billion in 2005 (a 46 per cent increase over the previous year) and investment in R and D was \$312 million. Recognizing its growth potential and strategic importance, many Governments have identified biotechnology as a key focus area. The biotechnology industry is diverse and provides opportunities in many niche areas, including the following:

*Contract research and manufacturing:* This presents a good opportunity for firms in the region, as drug companies in developed countries look for ways to reduce costs. Estimated cost savings from outsourcing in the bio-tech sector vary from 50 to 80 per cent. For outsourcing to take place, countries in the region need to improve their regulatory regimes to global standards.

*Vaccine development:* Countries in the region have used their biotechnology skills to develop vaccines that cost a fraction of those produced in developed countries. Chinese and Indian made Hepatitis A and B vaccines are an example of this.

*Generic drug manufacture:* Many countries in the region have already established themselves as major suppliers of generic drugs. As more generic products lose their patent protection, countries such as China and India are poised to use their biotechnology expertise to manufacture low-cost generics.

*Bioinformatics:* Countries are using their strengths in information technology to exploit the convergence between biotechnology and Information Technology. Malaysia is a good example of a country from the region that has made significant advances in bioinformatics.

*Traditional Medicines:* Countries in the region such as China, India and Malaysia are trying to leverage their strengths in biodiversity and traditional medicines by using modern drug discovery tools. This would enable accelerated commercialization of new therapeutics based on traditional medicine systems.

*Newly emerging areas or out-of-favour technologies:* Though some developed countries have discontinued funding for stem-cell research, countries such as Republic of Korea and Singapore have invested in this area. Chinese firms have persevered with research on gene therapy and are bringing products to the market.

Outsourced research and manufacturing are the main business opportunities in the near future, but firms from the region are expected to graduate to manufacture of innovative products. This would ensure that the biotechnology industry would raise living standards in the region through greater and more affordable supply of life-saving medicines.

*Source:* Ernst & Young, "Emerging Focus- The Asia-Pacific perspective", *Beyond Borders - The Global Biotechnology Report 2006*, available at: [www.ey.com/beyondborders](http://www.ey.com/beyondborders), accessed on 21 October 2006.

**Implementation of TRIPS provisions should take into account the legal and institutional mechanisms of individual countries within the region**

### 3. PROTECTION OF INTELLECTUAL PROPERTY RIGHTS

#### a. Agreement on Trade-Related Aspects of Intellectual Property Rights

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) has an impact on the development of pharmaceutical products and may have an impact on affordable access to drugs. It establishes mandatory minimum global standards for granting and protecting intellectual property rights in many areas, including copyrights and patents. Countries are supposed to implement the provisions of TRIPS, taking into account their legal and institutional mechanisms. Application of TRIPS in developing countries (except least developed countries) has been mandatory since 2000. Table VI.5 shows the status of countries in the ESCAP region with regard to the implementation of TRIPS.

**Table VI.5. Members and associate members of ESCAP that are members of WTO and signatories of TRIPS <sup>a</sup>**

Developed countries	Australia, Japan and New Zealand
Developing countries and areas	Brunei Darussalam; China; Fiji; Hong Kong, China; India; Indonesia; Macao, China; Malaysia; Pakistan; Papua New Guinea; Philippines; Republic of Korea; Singapore; Sri Lanka; Thailand; and Turkey
Least developed countries	Bangladesh, Cambodia, Maldives, Myanmar, Nepal and Solomon Islands
Countries with economies in transition	Armenia, Georgia, Kyrgyzstan, Mongolia and Viet Nam

<sup>a</sup> According to WTO classification.

When the WTO agreements took effect on 1 January 1995, developed countries were given a year to ensure that their laws and practices conformed to TRIPS, and developing countries and (under certain conditions) countries with economies in transition were given until 2000. Least developed countries, in accordance with their capacity and needs, were given 11 years to adjust their domestic legislation with the TRIPS rules. The transition period was later extended until 1 July 2013 to provide adequate protection for trademarks, copyrights, patents and other intellectual property, and until 2016 to provide protection for pharmaceutical patents.

The impact of TRIPS on pharmaceuticals is mainly felt through provisions that broaden the scope of patents to all fields of technology and through product patenting for pharmaceuticals. This allows the final product to be patented, irrespective of the process by which it is manufactured. It extends the period of patent protection up to 20 years from the date of filing and imposes stringent conditions for implementing safeguards for compulsory licensing, which would allow another manufacturer to produce the drug.

Prior to the implementation of the TRIPS agreement, many developing countries had provisions in their laws that allowed them to create opportunities for local firms to access foreign innovations through "reverse engineering" and through liberal use of licensing. Many countries allowed shorter terms of patent protection. Local manufacture was often an essential legal requirement for patents to work. Most developing countries in the Asian and Pacific region with a strong pharmaceutical manufacturing base, including China and India, have been able to build on weak intellectual property right protection which allowed local industry to develop capacity for producing reverse engineered drugs at lower costs.<sup>198</sup>

**Prior to TRIPS, many developing countries had provisions in their regulatory frameworks that created opportunities for local firms to access foreign innovations through "reverse engineering"**

The introduction of TRIPS meant that some countries in Asia and the Pacific which had hitherto supplied generic drugs within and outside the region, now had to implement more stringent intellectual property right protection. This had implications for the supply of affordable generic drugs, not only for the countries which produced them, but also countries within and outside the region which imported them. A significant proportion of drug exports from China and India are generic drugs which were developed through reverse engineering and this source may be affected with changes in patent law. Generic competition from developing countries has had a significant effect in opening access to anti-retroviral drugs and even on the prices of originator drugs.

The TRIPS Agreement as it stands, does offer a number of flexibilities, which are often not fully exploited by countries in the process of framing national legislation. Provided certain conditions are fulfilled, it allows governments to make exceptions to the rights of patent holders, such as in cases of national emergencies and with regard to anti-competitive practices, or if the holder of the right does not supply the invention. For pharmaceutical patents, the flexibility has been clarified and enhanced by the 2001 Doha Declaration on TRIPS and Public Health. Under the declaration, the TRIPS Agreement does not and should not prevent WTO member States from taking measures to protect public health. The member States underscored the ability of countries to use the flexibilities that are built into the TRIPS Agreement, including compulsory licensing and parallel importing. The enhancement was put into practice in 2003 with a decision that enabled countries that could not make medicines themselves to import pharmaceuticals made under compulsory licence in another country. In 2005, WTO member States agreed to make this decision a permanent amendment to the TRIPS Agreement, which will take effect when two thirds of the members accept it.

**The TRIPS Agreement offers a number of flexibilities, which are often not fully exploited by countries in the process of framing national legislation**

Compulsory licensing and government use of a patent without the authorization of its owner can be done only under a number of conditions aimed at protecting the legitimate interests of the patent holder. However, according to Article 31 (b) of the TRIPS Agreement, in cases of "national emergencies", "other circumstances of extreme urgency" or "public non-commercial use" (or "government use") or "anti-competitive practices", there is no need to try for a voluntary licence. Other safeguards include parallel imports of products marketed by the patent owner (or trademark- or copyright-owner, etc.), or with the patent owner's permission in one country and

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<sup>198</sup> UNCTAD, *Trade and Development Report, 2006*, (United Nations publication, Sales No. E.06.II.D.6), pp. 171-173.



imported into another country without the approval of the patent owner.<sup>199</sup> Some countries in the region have made effective use of the safeguards available under TRIPS, such as the use of compulsory licensing in Indonesia and Malaysia, and more recently, in Thailand.

Competition law, which exists in a number of countries inside and outside the region, allows compulsory licences to be issued in case patent holders are engaged in anti-competitive practices. Furthermore, in some countries outside the ESCAP region, competition law has been used to ensure access to essential drugs, particularly in the case of HIV/AIDS.

#### **b. Bilateral free trade agreements and intellectual property protection**

Another development that could have an impact on policies regarding intellectual property right protection in the region is the increasing prevalence of bilateral free trade agreements between countries in the region and developed countries. These have implications for both developing and developed countries in the region, as the pharmaceutical-related commitments in these bilateral and regional agreements extend well beyond TRIPS requirements. This may have an adverse impact on generic drug production and development.

#### **c. Quality assurance**

Counterfeit and substandard drugs have emerged as a global public health problem as they have been shown to cause injury, disability and death among adults and children. Estimates put counterfeits at more than 10 per cent of the global medicines market and as high as 25-50 per cent in developing countries. The problem is widespread in the Asia-Pacific region. One study conducted in South-East Asia found that up to 38 per cent of antimalarial drugs sold in the market were counterfeit. However, the problem of counterfeit drugs is not restricted to developing countries alone. A WHO survey of 20 countries which was conducted between January 1999 and October 2000, found that 60 per cent of counterfeit medicine reports occurred in developing countries and 40 per cent in developed countries.<sup>200</sup> The problem is due to multiple factors, including the absence of strong regulation and weak enforcement of laws. The increased trade in pharmaceutical products, including trade on the Internet, has also facilitated cross-border trade in counterfeit drugs.

### **4. COSTS, TARIFFS AND PRICING**

There is an inherent tension between industrial policy on promoting domestic production of pharmaceuticals and ensuring that essential drugs are sold at the lowest price. Tariffs are often used as tools to encourage domestic industry, which may be perceived as contributing to long-term sustainable security in pharmaceuticals, as against the immediate benefit of low tariff regimes in reducing the market price of drugs. Drug intermediates may also be subject to anti-dumping duties in some countries to protect domestic industry. In the Asia-Pacific region,

<sup>199</sup> WTO, *Fact Sheet on TRIPS and Pharmaceutical Patents*, accessed at: [http://www.wto.org/english/tratop\\_e/trips\\_e/trips\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/trips_e.htm), in September 2006.

<sup>200</sup> WHO, *Fact Sheet on Counterfeit Drugs* (Geneva, WHO, 2006), accessed at: <http://www.who.int/mediacentre/factsheets/fs275/en/print.html>, on 31 October 2006.

**Some bilateral free trade agreements may contain provisions which extend beyond TRIPS requirements**

**Counterfeit and substandard drugs have emerged as a global public health problem**



countries have tariffs on pharmaceuticals varying from zero to 30 per cent on active ingredients and zero to 12 per cent on finished medicaments.<sup>201</sup> Many countries have policies that exempt from import duties medicines which are considered essential or not manufactured in the country.

Retail mark-ups play a significant role in determining the final prices that the consumer pays for medicines. In some countries of the region, the retail mark-ups are substantial, varying from 16 to 25 per cent. In the case of imported drugs, the importer's margins can be as high as 25 per cent, with the cumulative mark-up ranging from 48 to 84 per cent on the manufacturer's cost, insurance and freight (CIF) price.

**Retail mark-ups play a significant role in determining the final prices that consumers pay for medicines**

Price regulation of pharmaceutical products is a tool that has been used by many developed countries to control the price of essential drugs. Out of 135 countries covered in the World Drug Survey in 1999, over 40 per cent did not have any measures in place to regulate medicine prices, whereas almost 80 per cent of high-income countries practised some kind of price regulation, compared with half of the low- and middle-income countries. Some 22 per cent of high-income countries and only 10 per cent of low- and middle-income countries used all the policy options available to control medicine prices.<sup>202</sup>

## 5. PRESCRIBING PRACTICES AND CONSUMER AWARENESS

Irrational use of medicines is a major problem in the region. It is estimated by WHO that more than half of all medicines are prescribed, dispensed or sold inappropriately and that half of all patients do not take them correctly. Irrational use of medicines covers instances where there is unnecessary prescription of drugs, especially antibiotics, prescription in wrong dosages, inappropriate self-medication, and underdosing or over dosing. This occurs due to a lack of knowledge or unethical behaviour among prescribers, and a lack of awareness and knowledge among patients. This increases the financial burden on the poor, who often have to purchase the medicines, and is also a cause for increasing prevalence of drug resistance.<sup>203</sup>

**More than half of all medicines are prescribed, dispensed or sold inappropriately and half of all patients do not take them correctly**

## 6. PUBLIC-PRIVATE PARTNERSHIPS TO PROMOTE AVAILABILITY AND ACCESS TO ESSENTIAL DRUGS

There have been a growing number of collaboration/partnerships between the public and private sectors in the field of international public health; a significant number of these are in the field of development and improving access to drugs for health problems of poor populations. Some examples of these partnerships and the areas they involve are listed in table VI.6.

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<sup>201</sup> H. Bale, "Consumption and trade in off-patented medicines", *CMH Working Paper WG4*, 2001, accessed at: [http://www.cmhealth.org/cmh\\_papers&reports.htm#WorkingGroup4](http://www.cmhealth.org/cmh_papers&reports.htm#WorkingGroup4), on 31 October 2006.

<sup>202</sup> WHO, *World Medicines Situation* (Geneva, WHO, 2004), page 72.

<sup>203</sup> WHO, *Selection and Rational Use of Medicines*, available at: [http://www.who.int/medicines/areas/rational\\_use/en/index/html](http://www.who.int/medicines/areas/rational_use/en/index/html), accessed on 7 February 2007.

**Table VI.6. Public-private partnerships to promote access to essential drugs**

Purpose	Partnership
Product development	Global Alliance for Tuberculosis drug development (GATBDD); International AIDS Vaccine initiative (IAVI); and Malaria Vaccine Initiative (MVI)
Improving access to drugs and products	The Mectizan Donation Programme (MDP); Accelerated Access Initiative; Global alliance to Eliminate Leprosy (GAEL); and Global Alliance to Eliminate Lymphatic Filariasis
Global coordination mechanisms	GAVI Alliance; Stop TB initiative; and Global Alliance for Improved Nutrition (GAIN)
Strengthening Health services	Alliance for Health Policy and Systems Research (AHPSR); and Multilateral Initiative on Malaria
Public advocacy and education	Global Business Coalition on HIV and AIDS; and Alliance for Microbicide Development
Regulation and quality assurance	International Conference on Harmonization and Counterfeit Drugs initiative

Source: Sania Nishtar, "Public- private partnerships in health: A global call to action", *Health Research Policy and Systems* (2004), vol. 2, No. 5.

These partnerships are not-for-profit entities and address the needs for product development for diseases or conditions such as malaria, Tuberculosis, HIV and AIDS which affect poorer countries. Some of the ventures are donation/distribution programmes for essential drugs over a sustained period of time. These public-private partnerships should be distinguished from purely private ventures and have clearly stated public health policy goal. The market for products needed mainly or used exclusively in poorer developing countries may be less commercially attractive than the market for those meant for developed countries. Therefore, interventions, such as tax credits for investments in research, sharing of development costs and public investment in basic research, may be needed in order to attract industry. Some concerns that are expressed about public-private partnerships include conflicts of interest over the role of industry partners; drug donations that involve high national costs for distribution; the exclusion from such programmes of poor countries with large populations or poor infrastructure; and the inability of developing countries to have a say in policies that could affect their populations. However, while taking heed of the concerns, these partnerships do have a contribution to make in areas where public agencies lack expertise, experience and resources such as drug development, manufacturing, marketing and approval.<sup>204</sup>

## 7. RECOMMENDATIONS AND POLICY OPTIONS TO ENSURE AFFORDABLE ACCESS TO MEDICINES FOR COUNTRIES IN THE ESCAP REGION

The lack of access to essential medicines is part of the larger problem related to the lack of access to health services in general. This affects a significant proportion

<sup>204</sup> WHO, *Public Private Partnerships in Health* (Geneva, WHO, 2006), accessed at: <http://www.who.int/trade/glossary/story077/en/> on 21 February 2007.

of the population of the region. Increased spending on health and strengthening of health systems for effective delivery of health services are clearly cross-cutting requirements which need to be met for ensuring access to affordable drugs. However, there is a clear need for certain focused policy actions that can be taken in parallel with addressing the more broad-based issues in order to improve access to affordable drugs. Considering the extreme diversity of the region in terms of its levels of economic development, health indicators and manufacturing capacities, it would be unrealistic to look for solutions for the region as a whole.

The response of countries in the ESCAP region must involve implementation and enforcement of strong regulations on the supply and demand side to ensure that essential drugs remain accessible to their populations. In the future, a delicate balance needs to be maintained between the need to encourage innovation and the imperative to provide affordable access to drugs.

## 8. KEY ACTIONS ON THE SUPPLY SIDE

### a. Promoting innovation and research in areas relevant to developing countries in the region

The existing trend of R and D in medicines concentrated in developed countries has resulted in the concentration of knowledge but also in concentration of research expenditure on diseases afflicting the richer countries. If this trend is to be reversed, countries in the ESCAP region need to establish and implement national programmes for health research with long-term funding. Attention has to be paid to the acquisition of new knowledge and technologies that will drive such research.

The development of innovative capacity in the ESCAP region would require a series of interlocking policies, including in the areas of education, intellectual property and technology transfer. In reality, it takes time for a country to develop such a set of policies and the necessary critical mass to trigger scientific and technological development. The introduction of such policies, furthermore, requires the right configuration of wider political and economic forces. Although the diverse political, social and economic contexts among countries does not allow a single model, some of the recent successful innovation experiences of developing countries in the region reveal some common characteristics. First, political will - the government actions over a range of policies and overall framework conditions - play a significant role in the outcome. Second, individual leadership also requires significant support from the Government. In many countries, a few individuals tend to stand out as architects of change. Third, specialization enabled a country to have an advantage in a certain area based on its unique contexts. Fourth, each country needs to emphasize and facilitate the significance of close linkages between the different players, such as universities and industry. Public-private partnerships can play a key role in this respect. Fifth, Governments need to stimulate enterprise creation in countries with weak private sectors. In the past, weak intellectual property regimes facilitated technological learning; however, with the TRIPS Agreement entering into force in almost all countries, those countries need to adapt to the new environment.<sup>205</sup>

*In the future a delicate balance needs to be maintained between the need to encourage innovation and the imperative to provide affordable access to drugs*

*Countries in the Asia-Pacific region need to promote national and regional research to develop products relevant to the region*

<sup>205</sup> WHO, "Public health: Innovation and intellectual property rights", *Report of the Commission on Intellectual Property Rights, Innovation and Public Health* (Geneva, WHO, 2006), pp. 143-146.

**Effective integration of traditional medicine systems into health-care delivery could provide a cost-effective alternative**

#### **b. Greater integration of traditional medicine systems**

Many countries in the region have strong traditional medicine systems, which constitute a significant proportion of the medicines used especially in low-income and middle-income countries (they account for up to 80 per cent in low-income).<sup>206</sup> Effective integration of these systems into health-care delivery could provide a cost effective alternative to more expensive treatments. The key to more effective integration lies in the standardization of medicines dispensed under these systems, the training of providers and the issuance of guidelines on their use. Traditional medicine systems could also serve as a base for the development of new molecules.

#### **c. Building capacity for local manufacture**

Capacity for local manufacture of medicines plays a key role in ensuring that essential medicines are available and affordable. Local capacity allows the development of generic competition and more effective implementation of safeguards, such as compulsory licensing and enforcement of price-control policies. However, it is unrealistic to expect all countries in the region to produce all the medicines that they need as it is not a viable solution. Regional cooperation agreements can facilitate the use of the capacity of some countries for manufacturing essential medicines for the benefit of the whole region.

#### **d. Effective utilization of available flexibilities under the TRIPS Agreement**

The utilization of all available flexibilities under the TRIPS Agreement, including implementation of safeguards, such as parallel imports and compulsory licensing, is essential. National legislation needs to incorporate all available safeguards in a clear and unambiguous manner.

**National legislation needs to incorporate all available safeguards under the TRIPS Agreement in a clear and unambiguous manner**

Regulatory provisions that facilitate the early introduction of generic drugs, such as the "Bolar" provisions,<sup>207</sup> could be utilized in national patent legislations. The impact of provisions which may act as barriers to timely introduction of generic drugs, such as "data exclusivity"<sup>208</sup> may be carefully considered. In product patent regimes, patents for new dosage forms, new delivery forms or even new combinations of two known products can be sought to extend the life of patent protection on the original molecule. The impact of these provisions needs careful consideration.

### **9. COST-CONTROL POLICIES**

Price regulation of pharmaceutical products is a tool that has been used by many developed countries to control the prices of essential drugs. Low- and middle-income countries in the ESCAP region can look more carefully at this option as a

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<sup>206</sup> C.J. Attridge and A.S. Preker, "Improving access to medicines in developing countries: Application of new institutional economics to the analysis of manufacturing and distribution issues", *Health and Nutrition and Population Discussion Papers* (Washington D.C., World Bank, 2005).

<sup>207</sup> Some countries allow manufacturers of generic drugs to use the patented invention to obtain marketing approval, for example from public health authorities, without the patent owner's permission and before the patent protection expires. The generic producers can then market their versions as soon as the patent expires. This provision is sometimes called the "regulatory exception" or "Bolar" provision.

<sup>208</sup> This may prevent health authorities from using test data submitted by originator manufacturers to evaluate the safety of generic medicines during the period of exclusivity.

means of providing affordable access to medicines. Policies that encourage the manufacture and use of generic drugs within health systems are also key measures to control the costs of drugs and increase affordability.

## 10. POLICY MEASURES THAT HAVE AN IMPACT ON THE DEMAND SIDE

### a. Introduction of courses to train doctors in appropriate, cost-effective drug prescription

Indiscriminate prescribing of antibiotics and other drugs, common throughout the region, increases the cost of health care and contributes to increased drug resistance. Lack of information and unethical drug promotion may contribute to this phenomenon. Therefore, it is essential to train doctors in appropriate, cost-effective ways of prescribing drugs.

### b. Separate prescribing and dispensing functions

In some countries the providers are also allowed to dispense drugs and have an inherent interest in promoting the use of drugs they sell. This has been identified as a major cause for increased treatment costs in many countries. Recently, countries such as China and the Republic of Korea have implemented policies which no longer make it possible for those prescribing drugs to also sell them to their patients.

### c. Create incentives for generic prescribing and substitution

Creating an essential generic drug lists in order to provide an alternative to patented drugs is one way of reducing drug costs in centralized drug procurement systems. This may not work in systems where drug prescription is mainly in the private sector and the purchase of such drugs is an out-of-pocket expense.

### d. Create consumer awareness of the quality and efficacy of generic drugs

In countries with poor quality enforcement, generic drugs are often perceived as not meeting minimum quality standards. This may lead to higher consumption of more expensive branded drugs. Consumption of branded drugs may also not assure good quality in countries where counterfeiting is prevalent. Strong implementation and enforcement of pharmaceutical quality laws may encourage the use of generic drugs.

*Strong implementation and enforcement of pharmaceutical quality laws may encourage the use of generic drugs*

## 11. KEY ACTIONS FOR IMPROVED REGIONAL COOPERATION

There are many constraints on national efforts to implement policies that ensure affordable access to drugs. Public health is a shared concern of all the countries in the ESCAP region. A regional approach to such issues as using flexibilities under trade agreements is logical, as it can strengthen negotiating positions and can provide creative solutions based on cooperation and collaboration. From an economic and public health standpoint, a regional approach can provide incentives to establish or develop regional pharmaceutical production arrangements and expand existing research facilities. The potential areas for cooperation are described below.

*Regional cooperation can be used to promote access to affordable drugs*

**a. Developing local technical expertise on use of flexibilities within trade agreements**

This could be done through dealing with intellectual property right issues as a component of broader economic integration, as has been adopted by regional economic cooperation organizations in Latin America and the Caribbean.

**b. Enhancing research and manufacturing capacities of developing countries in the region and facilitating implementation of paragraph 6 of the Doha Declaration<sup>209</sup>**

This could be done by planning pharmaceutical research and production in a disaggregated way, keeping in mind factors required to be in place for different kinds of pharmaceutical production. It could involve the development of regional hubs for publicly funded research and production, which could in turn lead to sharing the fruits of publicly funded research and wider use of pharmaceutical facilities for the benefit of all. Paragraph 6 of the Doha Declaration can be effectively used through a systematic and planned utilization of generic drug manufacturing capacities available in countries in the region in order to benefit those countries in the region which do not have such capacity.

**c. Developing technical and infrastructural capabilities for regulating medicines**

This could include coordinating lists of essential drugs, creating independent drug regulatory authorities, coordinating national drug policies and guidelines, coordinating action to tackle counterfeit drugs and creating mechanisms to deal with drug resistance. The problem of counterfeit drugs in particular cuts across borders and could be most effectively tackled by regional cooperation.

**d. Establishing regional procurement systems for pharmaceuticals**

Significant cost savings, efficiency and other benefits can accrue to countries in the region through regional, pooled procurement. The joint bulk-purchasing scheme for Pacific island countries is one example in the region of such an initiative. Most regional pooled procurement arrangements not only help to reduce prices, but also have the potential to deepen cooperation in managing other aspects of drug supply.<sup>210</sup>

## **B. IMPACT OF TRADE IN HEALTH SERVICES ON HEALTH SYSTEMS: TRADE AGREEMENTS AND SECTORAL CASE STUDIES**

This section focuses on the trade in health services and the possible impact of GATS. This set of rules is most relevant for the health-care services sector as it

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<sup>209</sup> Paragraph 6 of the Doha Declaration outlines the need to find ways to allow countries with limited or no manufacturing capacity for drugs to implement the safeguards contained in the TRIPS Agreement.

<sup>210</sup> South Centre, *Utilizing TRIPS flexibilities for public health protection through South-South regional frameworks* (Geneva, South Centre, 2004).



regulates services. Limited trade in health services existed long before the inception of GATS. The introduction of GATS, because of the limited commitments by countries, did not result in expansion of trade in health services; in fact, most of the trade was and still is conducted outside the agreement. However, examining trade in health services through a GATS lens provides a framework for studying other international commitments in health services. The section below examines the main modes of trade in health services and takes a more detailed look at the regional impact of some modes, such as Mode 2 related to consumption abroad (movement of patients across borders).

## 1. GATS AND HEALTH SERVICES TRADE

GATS applies to all services in any sector except those supplied in the exercise of government authority, defined as supplied neither on a commercial basis nor in competition with one or more service suppliers. This broad coverage of services is important as the development process requires repositioning of the private and public sectors in some services. This is of particular relevance to the health sector, which has traditionally in the same way as the education sector, been subject to strong government involvement in both developed and developing countries. Therefore, at the early stages of multilateral liberalization of services, including health services, it was not unusual to find individual ministries or even Governments viewing GATS as a threat with the potential of jeopardizing basic quality and social objectives.<sup>211</sup>

This was reflected by the lack of interest in opening up the health sector. Globally, more than 90 per cent of WTO members are committed to some liberalization in tourism, 70 per cent in financial and telecommunication sectors, while less than 40 per cent have provided any commitments to open health or education.<sup>212</sup> The commitments, where they were made, are quite limited. Other factors have been at work in limiting the opening up of the health sector, ranging from the factor of novelty of trade discipline and lack of experience in negotiating commitments under new rules to limited coordination between relevant government authorities and ministries in charge of individual sectors.<sup>213</sup>

**There was a lack of interest in opening up the health sector under GATS**

After a decade of operation of GATS rules, they are no longer perceived as threatening and members have been using the flexibility built into the rules to pursue their own policy objectives in sectors selected for liberalization.

### a. How is trade in health services conducted?

As for other services, the modal approach applies to trade in health services as well. Table VI.7 defines the modes for services in general and provides an estimate of the total trade in services carried out under each mode, while examples of health-services trade under each mode are given below.

<sup>211</sup> R. Adlung and A. Carzaniga, "Health Services under the General Agreement on Trade in Services" *Bulletin of the World Health Organization* (Geneva, WHO, 2001), vol. 79, No. 4, p. 353.

<sup>212</sup> R. Adlung and A. Carzaniga, "Trade in Health Services under GATS", *WTO working paper series* (Geneva, WTO, 2003), mimeograph.

<sup>213</sup> Analysis of these factors and other issues is in Blouin, C. N. Drager and R. Smith, eds., *International Trade in Health Services and the GATS - Current Issues and Debates* (Washington, D.C., World Bank, 2006).



**Table VI.7. Matrix of modal trade in services**

Mode	Description	Movement	Proportion of total services trade associated with a mode (percentage) <sup>a</sup>
Mode 1	Cross-border supply	Service	35
Mode 2	Consumption abroad	Consumer crosses the border to consume service at source of production/provision	10-15
Mode 3	Commercial presence	Provider/producer crosses the border to provide the service	50
Mode 4	Movement of natural persons	Provider/producer crosses the border to provide the service	1-2

<sup>a</sup> Estimates of the WTO Secretariat (2005).

#### **b. Mode 1: Cross-border supply**

This covers trade from the territory of one member into the territory of any other member. This mode was not developed in health until recently, when the rapid expansion of telecommunications and information technology have resulted in more widespread use of telemedicine across borders. This has enabled the use of visual and data communications for medical service delivery, diagnosis and treatment. Other developments include processing of medical records and insurance claims overseas. Telemedicine has some way to go towards becoming a viable force for cross-border health-care delivery as issues related to licensing, liability and quality remain unresolved. However, countries such as India and the Philippines lead in the export of certain services, including medical transcription, to the United States. The comparative advantage of these countries is their large pool of educated, English-speaking workers. In India alone, the number of people employed in activities providing Mode 1 health services increased from 30,500 in 2000 to 242,500 in 2005, while revenue increased from \$264 million to \$4,072 million over the same period.<sup>214</sup>

#### **c. Mode 2: Consumption abroad**

This covers services rendered in the territory of one member to the consumer of any other member. It involves the movement of consumers for medical education and for treatment. Medical education is important for some developed countries in the region, such as Australia and New Zealand. Movement of patients abroad is becoming a major business for destination countries such as India, Malaysia, Singapore and Thailand. The case study which follows this section gives an overview of the cross-border movement of patients in the region.

<sup>214</sup> S. Wibulpolprasert, "Health services and FTA", 2005, mimeo.

**Telemedicine needs to address issues of licensing, liability and quality**

#### d. Mode 3: Commercial presence

This mode includes investment in hospitals, management of hospitals or health insurance. Although commitment on health insurance would be also covered under financial services, the impact would also be felt through commitments in the health sector through investments in "managed care services". Anecdotal information indicates that foreign participation is still limited in the health care sector of ESCAP member countries. In Indonesia it accounts for just 1 per cent of hospital beds, and in Thailand it contributes 3 per cent of total investment in private hospitals. There is also outward investment by Indian, Malaysian, Singaporean and Thai and entrepreneurs in the health sector overseas.

**Foreign participation is still limited in the health-care sector of ESCAP member countries**

#### e. Mode 4: Movement of natural persons

India, Indonesia and the Philippines are some of the region's largest exporters of health-care workers. Filipino nurses and care-givers and Indian doctors generally seek employment in English-speaking developed countries and some countries in the Middle- East. Indonesian workers focus on Muslim countries in the Middle East, but also Malaysia and Singapore. Malaysia is in a unique position of being both a sender and a recipient of health personnel under Mode 4.

**Temporary movement of health personnel needs to be carefully managed through policies aimed at minimizing any adverse effects**

Remittances by migrant health workers constitute a significant contribution to the economies of a number of countries in the region. For example, India and the Philippines received remittances of \$21.7 billion and \$11.6 billion, respectively, in 2005,<sup>215</sup> a significant proportion of which can be assumed to be contributed by migrant health workers. The migration of health workers normally starts as a temporary phenomenon, but may after a while become permanent. Migration of health personnel may have an adverse impact on health systems in the sending countries unless there are appropriate policies in place to manage it.

**Table VI.8. Migration of health workers: Push and pull factors**

<b>Pull factors (factors in receiving countries)</b>	<b>Push factors (factors in sending countries)</b>
1. Shortage of health workers in certain areas. The United States alone reported a shortage of about 110,000 nurses, which is projected to increase to 800,000 by 2020 <sup>216</sup>	1. Wage differentials and prospect of economic advancement.
2. Ageing populations in developed countries are creating higher demands for health services - for example, this will increase the demand for nurses to care for the elderly	2. Better working conditions – health workers from source countries often work under difficult conditions and may be poorly motivated
3. Technological progress has increased the level and intensity of care provided, as well as increased demand for health services.	3. Improved career prospects
4. Globalization and commercialization of health services have contributed to the expansion of the global labour market for health workers	4. Some health workers migrate for social and family reasons, including the presence of friends/ family in receiving countries

<sup>215</sup> World Bank, World Development Indicators 2006 (World Bank, Washington, 2006).

<sup>216</sup> OECD, "Tackling nurse shortages in OECD countries", *OECD Discussion Paper No. 19* (OECD, Paris, 2005).

**f. Analysis of the commitments of members and associate members of ESCAP on health services in GATS**

**Only 16 ESCAP members have scheduled commitments related to health and social services under GATS**

Of the members and associate members of ESCAP, 30<sup>217</sup> are full members of WTO (six of them being least developed countries, five economies in transition and three developed economies). Only 16 of these WTO members had scheduled commitments related to individual health-related and social services under GATS. Market access commitments limit a country's use of any measures that are considered as restrictions to market entry in Article XVI of GATS. These are measures which limit the number of service suppliers, service operations or natural persons in a sector, the value of service transactions, the type of legal entity and foreign capital participation. Full market access in a certain sector or mode of supply is considered given if a country commits to use the word "none" under the listed limitations, and if it does not require any economic needs test. If a country maintains any of those, it grants partial market access and denies market access by scheduling "unbound" limitations. National treatment is reflected as the absence of any restrictions that modify conditions of competition to the detriment of foreign services or foreign service suppliers.

**Economies in the region are more reluctant to open labour-intensive activities than skill-intensive and capital-intensive activities for Mode 4**

The subsectors covered under health services are medical and dental services, veterinary services, hospital services, midwives and nurses, among, other human health services and social services.<sup>218</sup> Members and associate members of ESCAP are most confident in granting full market access and national treatment in medical and dental services (as part of professional services). A total of 10 countries committed to full market access and 9 to national treatment in this subsector. Hospital services are the next subsector in which countries are gaining greater confidence as nine countries have now granted full market access and full national treatment for this subsector. A comparison with the pattern of commitments globally indicates that economies in the region are more reluctant to open labour-intensive activities than skill and capital-intensive activities in this sector. Thus, it is no surprise that no member committed to full or partial liberalization within Mode 4 in any health sector activities, apart from the horizontal commitments.

Notwithstanding the above analysis, whether a country decides to commit to the liberalization of health-services trade through GATS or not, it will still need to grapple with many of the issues and challenges that arise in health-services trade and in the health sector in general. Many of the responses to those challenges are not directly related to GATS commitment.<sup>219</sup>

**ASEAN member countries recently agreed to speed up liberalization in several service sectors, including health**

An additional aspect of the thinking on the trade-health nexus arises from the increasing reliance of WTO members on preferential trade, almost to the extent of making an exception of most-favoured nation driven trade rather than a core rule of

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<sup>217</sup> At the time of preparing the present theme study, two countries had completed the WTO accession process and will become members upon completion of the internal ratification process: Tonga and Vanuatu. Viet Nam completed the accession and became the 150<sup>th</sup> member of WTO as of 11 January 2007.

<sup>218</sup> The definition of medical and health services employed by the most members for scheduling purposes also includes veterinary services and a non-specified category of other healthy-related and social services.

<sup>219</sup> J.Nielson (undated), "A (very) rough guide to thinking about commitments on health services under the GATS", prepared for the *WHO Handbook on Trade in Health Services*, mimeo.

global trade. Most countries in the ESCAP region are involved in bilateral and regional trade agreements. Even though health services provisions have not so far featured high on the agenda of trade negotiators, it is only a matter of time before preferential agreements will start to move faster in the direction of the health sector. This would happen if countries in the region perceive that liberalizing trade in health services through regional trade agreements is more advantageous to their economic and social objectives through the GATS. Some 20 trade agreements among ESCAP members include which refer either to professional services or medical/dental occupations, or to health-related and social services (services sector 8 in GATS terminology). Some of them also explore cooperation in setting standards in goods trade that relate to health issues (sanitary and phytosanitary measures/quarantine matters). Reservations to the provision of health services through the movement of natural persons (Mode 4), which is noted at the global level, is also very much the feature of the preferential agreements in the region. An encouraging sign was sent by ASEAN member countries which recently signed the Mutual Recognition Arrangement on Nursing Services (January 2007) and agreed to speed up liberalization in several services sectors including the health sector. Notwithstanding this, in several cases, those economies restricting future commitments to liberalization are doing so on the basis of the situation of health and social services being provided in the public interest. In summary, the health services sector is one area where preferential agreements have so far not secured any deeper liberalization compared with multilateral and unilateral liberalization efforts.<sup>220</sup>

## 2. CASE STUDY ON MOVEMENT OF PATIENTS ACROSS BORDERS AND ITS IMPACT ON THE ESCAP REGION

The movement of patients across borders, which is known as "medical travel" or "medical tourism"<sup>221</sup> refers to the increasing tendency among people from both developed and developing countries, where health services are either very expensive or not available, to travel abroad for more affordable health options, often in conjunction with tourism packages. Some countries in the ESCAP region have found a large business opportunity in what is fast becoming a multimillion dollar worldwide industry.<sup>222</sup> Increased foreign travel and widespread availability of consumer information and joint ventures in the private sector providing health services have all contributed to an increase in the consumption of health care abroad.

Exact figures are not available but some reports estimate the current global medical travel market is valued at \$40 billion, which is growing by an estimated at 20 per cent per year. In the Asia-Pacific region, just four countries – India, Malaysia,

**Four Asian and Pacific countries attracted 1.4 million travellers for medical treatments in 2003 and the number is rising fast**

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<sup>220</sup> M Roy, J. Marchetti and H. Lim, "Services liberalization in the new generation of preferential trade agreements (PTAs): How much further than the GATS?" World Trade Organization staff working paper ERSD-2006-07. (Geneva, WHO, 2006)

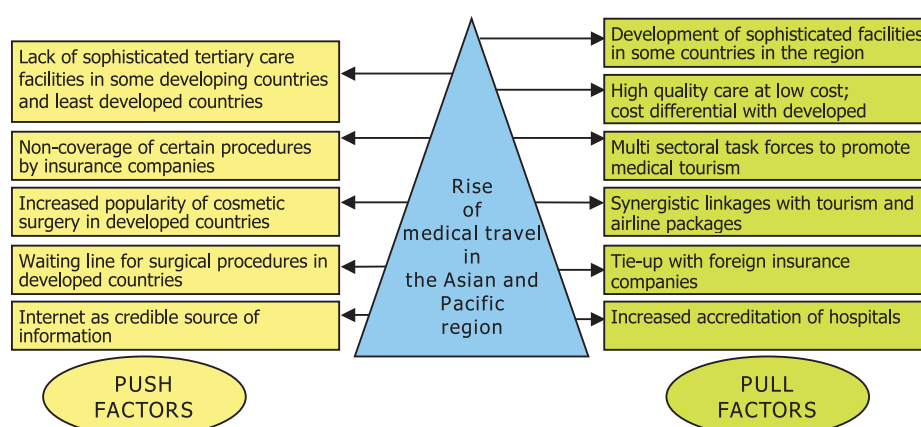
<sup>221</sup> The term "medical tourism" has been used to describe such travel across borders exclusively to seek medical treatments. However, a large proportion of such travel is exclusively to seek medical care and may not be associated with tourism. Therefore, the term "medical travel" has been used to describe the phenomenon.

<sup>222</sup> Acharyulu and Krishna Reddy, "Hospital logistics strategy for medical tourism", available at [www.ilsc2004.qut.edu.au/Post%20Conf/Conference%20Papers/ILSC%20101%20Acharalu%20Medical\\_Tourism.pdf](http://www.ilsc2004.qut.edu.au/Post%20Conf/Conference%20Papers/ILSC%20101%20Acharalu%20Medical_Tourism.pdf) -

Singapore and Thailand – attracted over 1.4 million medical travellers in 2003 and earned over \$1 billion (in treatment costs alone).<sup>223 224</sup>

Figure VI.3 illustrates some of the push and pull factors, influencing the cross-border movement of patients. The push factors prompting people from developed countries to travel for health care include the increasing popularity of cosmetic surgery; non-coverage of certain procedures by health insurance schemes; increased waiting lines for surgical procedures under national health schemes; and the availability of comprehensive information on the Internet. The pull factors include the emergence of state-of-the-art medical facilities in the region, especially in the private sector; and the significant cost difference between developed and developing countries for the same procedures and aftercare with no difference in quality. In fact, procedures such as cardiac bypass surgery, knee replacements and cosmetic surgery are performed at a fraction of the costs prevailing in the developed countries.

**Figure VI.2. Push and pull factors responsible for increased movement of patients across borders**



Some countries in the region have positioned themselves as providers of certain niche services which are not easily available elsewhere. The tie-ups with foreign insurance providers and increased accreditation of hospitals have also promoted medical travel. Some countries of the region are increasingly seeking to obtain ISO 9002 and hospital accreditation. Hospitals in India, Malaysia, Singapore, and Thailand have been accredited by the Joint Commission International, which makes it easier to attract foreign patients with insurance coverage.

Improved airline connectivity and linkages with vacation packages have meant that minor procedures such as dentistry and cosmetic procedures can easily be carried out as part of a holiday package, combining treatment and pleasure. Some countries such as India and Thailand, which have well developed alternative systems of medicine,

<sup>223</sup> 2003, "Global Health Trade": *Business World*, 2003 available at <http://www.businessworldindia.com/dec2203/index.asp>

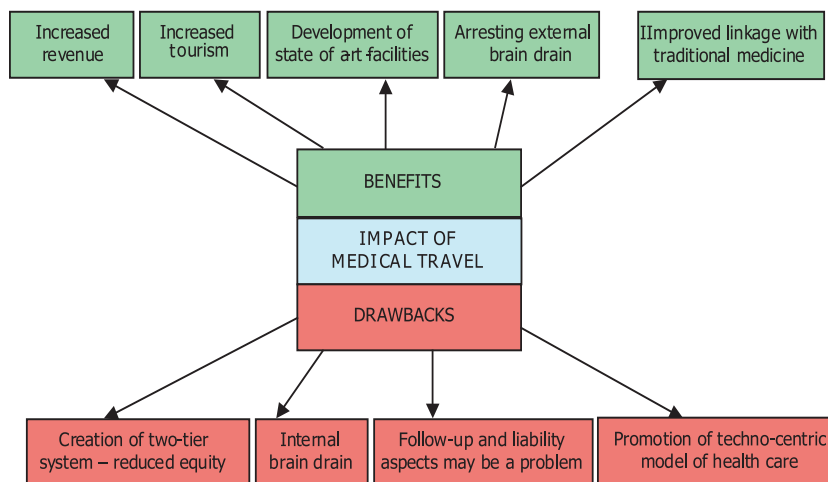
<sup>224</sup> Acharyulu and Krishna Reddy, Hospital logistics strategy for medical tourism, available at [www.ilsc2004.qut.edu.au/Post%20Conf/Conference%20Papers/ILSC%20101%20Acharalu%20Medical\\_Tourism.pdf](http://www.ilsc2004.qut.edu.au/Post%20Conf/Conference%20Papers/ILSC%20101%20Acharalu%20Medical_Tourism.pdf) -

also see an opportunity to promote them through medical travel. Governments in many countries are promoting medical travel and have set up dedicated missions and task forces. The increased perception and treatment of medical travel as an industry has meant that leading industry associations in India, Malaysia and Thailand have been seeking to promote their countries' strengths as health-care destinations by sending delegations to target countries.

Figure IV.3 outlines some of the main benefits and drawbacks of medical travel. The main benefit has been the economic gain that has accrued to receiving countries. Countries such as India, Malaysia, the Philippines, Singapore and Thailand foresee substantial untapped potential in this sector. A projection made in a study sponsored by the Confederation of Indian Industry, and conducted by the consulting firm McKinsey shows the Indian medical travel market being worth \$2 billion by 2012, while Singapore aims to have 1 million foreign patients come to Singapore for treatment by 2010. Malaysia has pegged its 2010 revenue target from medical travel at \$600 million.<sup>225</sup>

**The main benefits of medical travel include high revenues and reduced external "brain drain" of skilled professionals**

**Figure VI.3. Benefits and drawbacks of medical travel**



Increased tourism is among the benefits of medical travel. The synergistic linkages between the airline industry, the hotel and tourism industry and hospitals offering medical services are well established. One of the spin-offs of medical travel is that it encourages hospitals to upgrade their medical technology and improve quality of care in order to attract more patients. The phenomenon may also play a role in reducing the "external brain drain" of skilled health professionals from these countries. Anecdotal evidence from countries such as India and Thailand indicates that large numbers of medical graduates with specialized medical degrees from developed countries, are finding worthwhile and lucrative opportunities in their own countries and are therefore choosing to return home. Treatment centres in developing countries have not only provided options for patients from developed countries but

<sup>225</sup> Data obtained from a speech by the Minister for Health of Malaysia at a signing ceremony to promote international medical tourism, delivered at Seri Kembangan on 19 July 2004.



**Many countries have seen an "internal brain drain" from the public sector to more lucrative jobs in the private sector, partly due to medical travel**

also to needy patients from neighbouring countries. In some cases a country acts both as a destination and sending country. Patients from Indonesia may travel to Malaysia, Singapore and Thailand, while patients from Malaysia may travel to Singapore for certain kinds of treatment. The development of traditional medicines in some countries can also be seen as a spin-off of medical travel. Countries such as India and Thailand are promoting a holistic package covering leisure tourism, traditional medicine and medical travel.

The negative impacts of medical travel include the possible creation of a two-tier system for health-care delivery. Sophisticated hospitals with latest technology cater to the rich and to foreign tourists, while underfunded public health systems are left to cater to the poor, who cannot afford access to these new hospitals. The private sector has developed largely on its own in most Asian and Pacific countries and has not received any substantial subsidy support from Governments, but the active promotion of medical travel by Governments is questioned by some critics. It may also result in a techno-centric approach to health care, which may be seen to increase cost of health-care delivery.<sup>226</sup>

Many countries have seen an "internal brain drain" from the public sector to more lucrative jobs in the private sector, partly due to medical travel. One study from Thailand estimates that the resources needed to service one foreign patient are equivalent to those required for four to five Thais. At the current rate of growth of the workload related to servicing foreign patients, about 3,000 additional full-time doctors will be required in the private sector, clearly indicating a potential shift of human resources from the public to the private sector.<sup>227</sup> Other potential problems relate to patient aftercare and liability and compensation issues in case problems occur.

## C. RECOMMENDATIONS AND POLICY OPTIONS

There are many lessons that can be drawn by policymakers in the ESCAP region. The role of Governments could involve the following:

- (a) Safeguarding against adverse impacts on the delivery of public health services;
- (b) Managing the process to maximize the benefits for all concerned.

### 1. SAFEGUARDING PUBLIC HEALTH INTERESTS SHOULD BE PARAMOUNT

**Governments need to protect public health-care delivery and patient rights**

Governments of receiving countries have to ensure that the trade in health services is not to the detriment of the public health system. This means that policies have to be in place to ensure that such trade not only does not adversely affect the delivery of public health services, but can be managed in such a way so as to benefit the performance of health systems as well as the economy as a whole.

<sup>226</sup> Rupa Chinai and Rahul Goswami, "Are we ready for medical tourism?", *The Hindu*, 17 April 2005 downloaded from <http://www.hinduonnet.com/thehindu/> on 30.4.2006.

<sup>227</sup> World Bank, *International Trade in Health Services and the GATS- Current Issues and Debates*, (Washington D.C. World Bank, 2006)



**a. Ensuring trickle down of benefits**

The modern technology and resources of private hospitals, as a result of foreign investment (under mode 3) or to service patients from other countries (under mode 2), could be made accessible to all through policies that encourage treatment of poor patients at a concessionary rate. Such policies have been attempted by some countries in the region but need to be implemented more vigorously.

*There is a lack of reliable information on the trends and impacts of the trade in health services*

**b. Policies to retain health workers and slow their migration**

Policies need to be in place at the national level and supplemented by regional initiatives in order to retain health workers and slow the migration of highly skilled professionals. This would mean addressing issues related to labour and wage policies, as well as incentives for medical personnel to stay in the country. In developing countries, it also means that policies and programmes are in place to impart appropriate training to health workers to service health systems in their home countries rather than those of developed countries.

**c. Collection of reliable data for policy formulation**

There is a lack of reliable information on the trends and impacts of the trade in health services. Most of the available information is anecdotal and drawn from the media. There is a clear need for countries in the region to collect and exchange reliable information on the trade in health services and its impact. This would help in quantifying the benefits and identifying potential negative impacts, and allow for timely policy interventions.

**2. MEASURES THAT COUNTRIES COULD TAKE TO MANAGE THE PROCESS IN ORDER TO OPTIMIZE THE BENEFITS OF THE TRADE IN HEALTH SERVICES**

**a. Creating multisectoral task forces**

These task forces could involve policymakers from ministries of health, commerce, tourism, planning, as well as from the private sector to analyse and understand the impact of the trade in health services on health systems. These task forces could facilitate development and implementation of holistic and complementary policies that optimize the economic benefits of this trade, while at the same time protecting public health.

**b. Accreditation of hospitals in receiving countries**

This is a key step to ensure the quality of care in hospitals that may be built with foreign investment under Mode 3, or to service patients under Mode 2. This will not only benefit foreign patients, but, importantly, local patients who may access these hospitals. Accreditation by reputed agencies could facilitate tie-ups with foreign insurance companies and also assure the patient of the quality of care he or she would receive.

*Accrediting hospitals is important for ensuring quality of care*

**c. Portability of health insurance**

Medical travel could be viewed as a cost effective option for providing medical care to patients with health insurance coverage, and could benefit both the patient

and the insurance company. The potential for further liberalization of portability has significant implications for the growth of medical travel. Despite the interest that has been shown by some insurance companies in developed countries in this regard, some issues, for example, lack of accreditation and pressure from provider lobbies in developed countries, have hindered progress in this direction. This matter could be discussed further as part of the negotiations under GATS relating to financial services.

#### **d. Linking traditional medicine to medical travel**

Countries such as China, India, the Republic of Korea and Thailand, have a strong base in traditional medicine. The potential for combining the promotion of traditional medicine with medical travel has not been fully exploited. Medical treatment that combines or draws from cures available in traditional medicines could contribute to the synergistic growth of modern and traditional systems of medicine.

#### **e. The role of regional cooperation**

As a cross-border issue, regional cooperation between countries can help facilitate the development of the trade in health services and also protect public health. Below are some potential areas of cooperation:

- Sharing experiences on ways to reduce the adverse impact of the trade in health on equity and the quality of public health delivery within countries;
- Information collection and exchange in a set format to provide a reliable evidence base for formulating policy;
- Portability of health insurance;
- Accreditation of hospitals and health-care providers at the national and regional levels in order to ensure uniformity of standards;
- Liability and patient confidentiality, which are key issues that could have a regional solution through the establishment of a dialogue between sending and receiving countries;
- Cost reduction and patient facilitation measures through intercountry agreements between sending and receiving countries;
- Developed countries receiving health workers on a temporary or permanent basis could launch a re-investment fund on a voluntary basis to build urgently needed human resources and capacity in poorer sending countries;
- Receiving countries could also increase temporary work permits for health professionals from source countries where migration is mutually beneficial;
- Adoption of a code of ethics for the recruitment of health professionals is also an option. This code would require a dialogue between sending and receiving countries. Under this code, receiving countries would refrain from targeting recruitment, including via the Internet, from countries experiencing severe shortages in human resources.

*Regional cooperation can facilitate development of the trade in health services, while at the same time protecting public health interests*

## **D. CONCLUSIONS**

Effective functioning of health systems for achieving MDGs and beyond requires stakeholders to address not only issues within the purview of health systems, but also the broader determinants, such as trade and the economy. These factors are exerting increasing influence on health outcomes. They are, in particular, critical factors in ensuring access to affordable drugs. At a time of ageing populations, increasing incidence of non-communicable diseases and growing use of modern technologies, medicines will contribute a major part of the costs of health care. Clearly, effective management of the multifarious impacts of trade on health through policies and programmes is essential to the equitable delivery of health care in the region. There is considerable policy space available for the development of new policies and expanding the scope of existing ones to optimize the benefits of trade on the performance of health systems and to protect public health. Countries in the region need to utilize this space effectively.

Providing affordable access to medicines, however, requires a multi-pronged approach. ESCAP members need to work together to find new mechanisms to finance research that focuses on diseases prevalent in the region and to ensure that the fruits of such research result in the availability of affordable medicines in all countries in the region. Regional cooperation is also essential to ensure that the capacity for manufacturing generic drugs that exists in some countries of the region is used for the benefit of countries which do not have the same kind of capacity.

At the national level, Governments can do much more to ensure that all available flexibilities within the TRIPS agreement are incorporated into national laws. Complementary actions are equally important. These include measures to reduce irrational prescribing, promoting the use of generic drugs and price control regulations, where appropriate.

The international trade in health services is vibrant in the region, especially cross-border movement of patients and migration of health professionals. Such trade offers exciting possibilities in terms of revenue generated and remittances received, but holistic policies are required to manage the process in a manner that protects public health interests. Regional cooperation is essential and effective in managing these cross-border processes.



## CHAPTER VII

# CONCLUSIONS AND RECOMMENDATIONS

**E**vidence at the regional and global levels confirms a clear two-way linkage between health and growth. Improvement in health is a strong contributor to labour productivity and economic growth, while economic growth contributes significantly to improved health outcomes, as shown by experiences over the last century. However, examples from within the ESCAP region, including from countries such as Sri Lanka and Viet Nam, indicate that significant improvements in health outcomes can be achieved without large increases in income.

*Improvements in health  
can be achieved  
without large increases  
in income*

Indeed, country evidence shows that income growth alone cannot account for health improvements. Technical progress has been of key importance in cases of significant health improvements, irrespective of the presence or absence of economic growth. Technical progress, as it is broadly perceived, includes technological progress in developing sophisticated interventions and developments in such areas as vaccine and drug development, and innovations in improving health systems, as well as health financing and public policy. It is also noteworthy that significant health improvements have resulted from the technical progress made in sectors outside health, such as sanitation, drinking water, housing, roads and education. Such developments are important tools to ensure health equity.

Health is a fundamental tool for reducing poverty and hunger. This requires greater emphasis on health sector improvement at the national, regional and global levels. Importantly, such improvement would necessitate more emphasis on ensuring that women, the poor and other vulnerable groups have access to health services. Further, national macroeconomic policy, in particular fiscal and monetary policies, can be designed and carried out in such a way that key policies are conducive to the development of an efficient health sector. Moreover, sector-specific policies can play an important role in promoting health and growth, with concerns of equity, quality and efficiency being consistently addressed. However, the importance of improvements in health as a foundation for more sustainable economic growth in the region has been underestimated.

*Health can be a  
fundamental tool for  
reducing poverty and  
hunger*

This pattern has resulted in the uneven progress of countries in Asia and the Pacific towards achieving the health-related MDGs. There are wide disparities in levels of health between and, just as stark, within countries. Hidden behind national averages is the fact that in many countries there are large regions and groups of people, the most vulnerable and disadvantaged, that have not benefited from the economic growth and progress that has taken place.

**Comprehensive health care is key to sustainable progress towards achieving the MDGs**

The achievement of the health-related MDGs has been slow and variable in many countries in Asia and the Pacific. This is in large part due to health systems that have been inadequately funded and that experience serious deficiencies in infrastructure, human resources and the availability of essential drugs. A number of disease-specific initiatives launched to help countries reach the MDGs have had a limited impact because of weaknesses in the health systems implementing them. The targeting of specific diseases through focused programmes may appeal to donors, as this approach may show results which are measurable and quicker to achieve. However, adoption of a health systems approach for achieving the MDGs, as opposed to piecemeal approaches, is a key area of attention for countries if they are to achieve the health-related MDGs in a sustainable manner.

Catastrophic out-of-pocket medical expenditures are a major cause of poverty in many countries in the ESCAP region. This is a result of inadequate State spending on health, inefficient use of existing resources, lack of equity within health systems and lack of access to health services. Comprehensive strengthening of health systems to ensure access to a minimum level of health care for the whole population protects people from catastrophic medical expenses.

**Improving the levels of health also requires action to address key determinants of health, such as education, gender equality and the environment**

Progress on these issues requires action mainly outside the purview of the health sector. These determinants can be addressed more effectively within health programmes and by mainstreaming health within all policies. Broad determinants related to economic and trade regimes have a significant impact on the performance of health systems. These include areas such as affordable access to drugs and the migration of health professionals. Managing the broad determinants is as important as dealing with issues within the purview of the health sector.

National actions to strengthen health systems and improve health-service delivery needs to be centred on the following key areas, for countries in the region to make concrete progress towards the health-related MDGs.

## **A. COMPREHENSIVE STRENGTHENING OF HEALTH SYSTEMS**

**Progress towards the MDGs and beyond needs strong, comprehensive health systems**

The key to achieving the health-related MDGs in the Asia-Pacific region lies in adopting a comprehensive health systems approach rather than a disease-specific approach. Many interventions aimed at reducing under-five mortality, maternal mortality and mortality due to malaria, tuberculosis and HIV/AIDS do not achieve their objectives because the health systems through which they are delivered have deficiencies. These deficiencies include shortcomings in infrastructure, human resources and underfunding. Interventions will be effective only if delivered through functioning and strong health systems. It is also important for countries to look beyond MDGs. Some countries in the ESCAP region are experiencing rapid population ageing and the prevalence of non-communicable diseases is also rising. These demographic and epidemiological changes have serious significance for health systems as they are set to increase the burden on tertiary facilities and increase the demand for rehabilitation and care services. These demands can be met only by efficient, equitable and well-funded health systems. Actions required to strengthen health systems that fall within the purview of the health sector come under the following main headings.

## 1. BUILDING BASIC INFRASTRUCTURE TO DELIVER HEALTH SERVICES, DRUGS AND DIAGNOSTICS

Different countries have varying structures for delivering health care which depend on the historical evolution of their health systems and the models adopted for providing health care. Many countries in the region urgently need to upgrade health-related infrastructure. In some countries, the primary health-care network needs to be augmented, in others it is tertiary health care that may be weak. In most cases, the need is to refurbish and better equip existing facilities rather than to build new facilities. As discussed in chapter V, estimates indicate that implementing the increased package of health interventions necessary to achieve the health-related MDGs would require a considerable scaling up of investment in infrastructure by 2015.

## 2. HUMAN RESOURCES FOR HEALTH

The shortfall in the training of human resources in the region's health systems is one of the main constraints on achieving MDGs and this situation needs to be addressed urgently. *The World Health Report 2006* has explored this issue extensively. Many members and associate members of ESCAP, especially in the Pacific, lack both training facilities and the pool of health workers required to implement interventions effectively. Even in countries where the average number of health workers is high, they are more likely to be found urban rather than in rural areas and engaged in the private rather than the public health care sector.

However, shortages in and skewed distribution of health workers can be tackled only if policies addressing factors outside the purview of the health sector are pursued in parallel to policies within it. Migration of health workers also creates shortages in some countries. Countries need strategies to slow down the migration of highly skilled professionals, while at the same time investing in the training of health workers for both domestic and international deployment. Coercive protective strategies are not effective without policy actions to address the main factors prompting migration, such as ensuring increased remuneration and better working environments.

## 3. PROVIDING AFFORDABLE ACCESS TO QUALITY ESSENTIAL DRUGS

Providing affordable access to life-saving medicines and drugs requires action within and beyond the health system. Such action must address issues related to the lack, or poor enforcement, of regulations for drugs and vaccines, and/or bottlenecks in the distribution and dispensing of medicines which limit the access to effective drugs. In addition, a number of other factors related to economic and trade agreements and policies also undermine investment in the research, production and trade in medicines that are essential for the prevention and treatment of diseases affecting the poor. Ensuring a supply of good quality essential drugs at affordable prices requires actions within and outside the health system and is important for achieving MDGs. The response of countries in the Asia-Pacific region must involve comprehensive regulations and their enforcement on both the supply and demand sides.

*Demand and supply-side regulations are needed to promote access to affordable drugs*



**Countries in Asia and the Pacific must acquire knowledge and technologies that drive R and D**

The key is to find a balance between encouraging innovation that facilitates the development of new medicines and safeguards that protect access to drugs. The existing trend of R and D in medicines has resulted not only in a concentration of knowledge but also in a concentration of research expenditure on diseases afflicting richer countries. If this trend is to be reversed, countries in the region need to establish national programmes for health research with long-term funding. Attention has to be paid to the acquisition of new knowledge and technologies that will drive such research. Many countries in the region have strong traditional medicine systems. Effective integration of these systems into health-care delivery could provide a cost-effective alternative to more expensive treatments. The key to more effective integration is in the standardization of medicines dispensed under these systems and in the issuing of guidelines on their use and comprehensive training of providers.

Protective action to ensure affordable access to essential medicines includes utilizing all available flexibilities under the TRIPS Agreement, including implementation of safeguards, such as compulsory licensing. Strengthening competition laws to deal with anti-competitive practices is also an important step that is overlooked by many countries. Governments can also rationalize regulations that obstruct the timely introduction of generic drugs.

Low- and middle-income countries can, as many developed countries in the region have already done, consider adopting price regulation of essential drugs as a means of providing affordable access to medicines. Measures that influence the demand side include the introduction of courses for rational cost-effective prescribing for doctors, including prescription by pharmaceutical name; separating the acts of prescribing and dispensing; creating incentives for prescribing generic drugs; creating consumer awareness about the quality and efficacy of generic drugs and their role in controlling costs; strong implementation and enforcement of pharmaceutical quality laws; and tackling the problem of counterfeit drugs. The emerging public-private partnerships in the field of drug development and distribution is drawing increasing attention. These partnerships provide new hope for stimulating research in neglected area and for providing drugs to tackle diseases of the poor. These public-private partnerships need to be expanded further, particularly in those areas where there is a gap in the provision of essential drugs.

## **B. PROVIDING HEALTH SERVICES TO ALL SECTIONS OF THE POPULATION**

Health systems need to be equitable and accessible to all sections of the population. Economic, social and physical barriers restrict access to health services in many countries, resulting, inter alia, in high levels of out-of-pocket expenditures. Universal coverage of a minimum package of health services is vital not only for providing access to affordable health services to all sections of the population, but also towards achieving the health-related MDGs. In the context of this study, universal health-care coverage could consist of (a) arrangements for the financing and provision of health services, such that at the very minimum there would be equality in the use of health services by all and equity in the use of health services in relation to need in the case of high-income economies; and (b) financing and provision of health services, such that no household would be forced to make payments so high that it would be impoverished, only to receive a basic minimum level of acceptable health services when household members fall ill.

A rights-based approach to health within a country or region can provide an authoritative basis for providing universal access to basic health care. There are two distinct approaches within the region that have been demonstrated to achieve universal health-care coverage, namely tax-financed national health services and social health insurance financing. The relevance and appropriateness of these two strategies will depend on the national context, but in general social health insurance approaches have proved feasible only in middle-income or rich countries, while the tax-financed national health services approach has been successfully adopted by low-income economies. The key challenge in attaining universal health-care coverage is in ensuring that government tax revenue is made available to finance coverage for the poorest and most vulnerable groups, regardless of whether the general approach is the social insurance or tax-based health services model.

***Tax revenues need to finance health-care coverage of the poor and most vulnerable***

Successful countries in the region have benefited from international experience in designing and achieving universal coverage. Countries in Asia and Pacific can benefit from considering and learning from the substantial experience with universal coverage and with different approaches to achieve it that now exists in the region. A key lesson from the region's success stories is that the introduction of universal health-care coverage cannot be achieved without political commitment and must involve placing universal coverage of health at the forefront of the political and policy agenda.

***Universal health-care coverage cannot be achieved without political commitment***

## C. INCREASING INVESTMENTS IN HEALTH

The dual strategies of strengthening health systems and providing universal health-care coverage require a significant increase in investment for the health sector. This calls for more effort by all stakeholders, including Governments in the Asia-Pacific region, donor countries and aid agencies.

Although the role of national Governments in providing health-care services as a public good is fundamental, external sources of funding are also important to expand the coverage of health care and to help close the resource gap faced by certain countries in the region.

***Greater government spending and external aid are essential to increase investments in health***

Raising domestic resources can be a lengthy process, whether through specific fiscal policies, or by allocating more resources to health. Development agencies can assist by offering technical support to tax reform, encouraging Governments to commit greater allocations of public expenditure to health and offering financial assistance to ease adjustment costs.

However, greater government expenditures are also needed to support complementary services that lie both within and outside the health sector, such as transportation links to hospitals and easy access to water and sanitation. Achieving the health-related MDGs can be expedited by a multisectoral approach, as well as by policies and institutional capacities that enhance growth, including through trade, infrastructure development and attracting investment.

Thus, closing the financing gap to achieve the health-related MDGs in Asia and the Pacific is possible, but only by combining greater allocation of resources to health and their more efficient use. Costs will vary from country to country, with threats such as HIV/AIDS and avian influenza; on the other hand, preventive measures, such as health promotion, could play a role in moderating costs.

While most countries should be able to achieve MDGs by efficient and equitable allocation of domestic resources, the least developed countries are likely to require external assistance. The additional investment needed to achieve the health-related MDGs - above and beyond the resources that can be generated domestically in the least developed countries of Asia and the Pacific - is a modest \$3.6 billion annually, or \$32.4 billion over the period from 2007 to 2015. In these countries, as elsewhere, donor countries need to maintain aid commitments, while recipient countries need to formulate coherent and consistent policies that ensure the equitable and most cost-effective use of resources.

## **D. ADDRESSING DETERMINANTS OF HEALTH**

### **1. INTEGRATING HEALTH INTO ALL POLICIES**

**Governments need to integrate health in policymaking for all sectors**

Health is significantly influenced by a large number of determinants, including those related to individual lifestyles, environment, culture and the structure of society at large. The fact that a country's health status is not dependent only on policies within the health sector makes it imperative for health considerations to be integrated into policymaking at all levels. Such integration would help to strengthen policies promoting health and it would also help to identify potential risks to health arising out of specific policies and work out ways of mitigating or minimizing them. Such integration should embrace policies on trade, agriculture, environment, transport, labour, planning and education, as well as poverty alleviation and the social sector.

Effective implementation of this strategy, however, requires that governments give high priority to health and recognize the need to mainstream health into all policies as a complementary strategy to the core public health interventions. It also requires good quality data on the impact on health of specific determinants and proper analysis of these data to inform policy. Capacity has to be built in the health sector to provide health-related inputs to policymaking in other sectors.

### **2. HEALTH AND POVERTY REDUCTION POLICY**

The health-related MDGs should be at the forefront of social and economic development policies, including poverty reduction strategy papers. The strategies should recognize that health care is not just a service to mitigate the impact of poverty but rather a precondition for economic development and poverty reduction. Governments should therefore ensure that ministries of health participate actively in the design and implementation of national development policies and that health objectives are adequately represented in poverty reduction strategies.

### **3. HEALTH AND EDUCATION POLICY**

**Health campaigns are particularly effective when targeting young people**

Programmes aimed at improving health literacy should make use of the widest possible range of communication channels, including schools, the workplace and other community settings. Programmes aimed at health promotion and the prevention and modification of risk behaviours are particularly effective when targeted at younger age persons, and should therefore be integrated within school curricula. Those responsible for the design and implementation of educational campaigns

should ensure that messages reach the poor and vulnerable groups using channels and communication strategies that are most accessible to them.

#### 4. HEALTH AND GENDER POLICY

Improving women's health requires a comprehensive response that improves their access to health services while simultaneously addressing the underlying causes rooted in gender disparities. Addressing the socio-cultural, legal and political barriers that prevent women from having the same access as men to health information and services requires strengthening advocacy on gender equity but also empowering women through targeted legislation. Health and other relevant ministries need to mainstream gender equity in health and development initiatives.

### E. HEALTH PROMOTION AND HEALTHY SETTINGS

Health promotion goes beyond health care to healthy living in healthy environments. This approach emphasizes the importance of the relationship between people and their environment. It also acknowledges the linkages between sustainable development and health on one hand, and between deterioration of human settings and health risks on the other.

The Ottawa Charter for Health Promotion (1986) refers to health promotion as a "process of enabling people to increase control over, and to improve, their health." The Bangkok Charter (2005) complements the Ottawa Charter by employing a more global perspective and stressing the need to address increasing inequalities within and between countries, new patterns of consumption and communication, commercialization, global environmental change and urbanization. The prerequisites and prospects for health cannot be ensured by the health sector alone. Health promotion action requires multiple approaches, relies on interdisciplinary inputs and operates at several levels over long periods of time. It demands coordinated action by all stakeholders, including Governments, health and other social and economic sectors, non-governmental and voluntary organizations, local authorities, industry and the media. People in all walks of life are involved as individuals, families and communities. Professional and social groups and health personnel have a major responsibility to mediate between differing interests in society for the pursuit of health. Importantly, health promotion strategies and programmes should be adapted to the local needs and potentials of individual countries and regions in order to take into account differing social, cultural and economic systems.

*Effective promotion of health requires multiple approaches over long periods of time*

Healthy environments extend from the local to the regional and global level, and include all aspects of human life: home, neighbourhood and community, as well as places for work and leisure. The conceptualization of healthy environments therefore provides a framework for multisectoral approaches to issues such as unsafe water, poor sanitation, indoor pollution, bad nutrition, occupational hazards, housing and settlements, and the impacts of environmental degradation on human health. At the same time, a healthy setting perspective also encourages the participation of individuals and communities and emphasizes the responsibilities that local governments should assume in creating healthy local settings.

**Health for all requires action beyond treatment and curative services**

Legislation and government action in the area of urban planning and infrastructure could also help to create healthy settings by promoting public transport, and the creation of green and open spaces for leisure, exercise, etc. Establishing healthy workplaces or healthy schools also requires that Governments regulate the manufacturing, advertising and sale of products that have an adverse impact on health, for example tobacco and alcohol. Governments could also promote healthier lifestyles by strengthening regulations on food standards and labelling. A change in attitude and organization of health services is needed in order to focus once again on the total needs of individuals and communities. The private sector too has an important role to play in creating healthy and safe workplaces. Additionally, all stakeholders must ensure access to information, life skills and opportunities for making healthy choices. People cannot achieve their fullest health potential unless they are able to take control of those things which determine their health. This must apply equally to women and men. All this implies that to achieve health for all beyond 2015, the role of the health sector must move increasingly beyond its responsibility for providing clinical and curative services to the broader requirements of a healthful social environment.

## **F. INTEGRATING INFORMATION, COMMUNICATION AND SPACE TECHNOLOGY TO IMPROVE HEALTH SYSTEMS**

**A strong legal framework should complement e-health development**

Information, communication and space technology can improve access to health services and promote health equity, quality and efficiency. However, effective use of ICST depends on the existence of the required infrastructure. Basic and reliable electric power and ICST infrastructure covering whole countries is a prerequisite. E-health should be used to promote health equity and improve access for vulnerable and remote populations rather than being a tool to benefit only the richer sections of society. Keeping this overarching principle in mind, Governments could invest in public-private partnerships for building such infrastructure and in the provision of services by creating a suitable environment in which private companies could invest and develop the e-health service sector. At the same time, there should be clear incentives for health-care providers to use newer technologies by improving their capacity and investing in research, education and continuing professional development.

A strong legal framework to regulate the functioning of e-health, inter alia, to protect confidentiality of patients and quality of service should be developed in parallel with the development of technology. Governments should take the lead in promoting and integrating the use of ICST in health services, and should assume the role of coordinator with clear powers of oversight to ensure effective implementation of e-health service and to promote good practices.

## **G. REGIONAL APPROACHES TO STRENGTHENING HEALTH SYSTEMS**

Many of the problems and constraints affecting the achievement of MDGs cut across borders of countries and regions. The action taken by one country may not solve a particular problem, which may be present in many countries and regions, warranting simultaneous action by all. Resources available in one country also may

not be adequate to tackle a common problem.

Newly emerging communicable diseases, such as avian influenza and SARS, exemplify challenges that demand a regional response. These diseases/syndromes have the potential to turn into pandemics which could cost millions of lives and inflict massive economic losses, setting back regional development by years. Countries cannot effectively protect themselves against such threats by responding individually. Regional cooperation in exchanging information, knowledge and resources and in strengthening surveillance mechanisms in all countries would be of benefit to all.

*The programmes, policies and services which affect more than one country in the region should be treated as "regional public goods"*

Similarly, funding tropical diseases research, which has been neglected by the global pharmaceutical industry, would require combined initiatives from groups of countries affected by such diseases. Individual countries will likely be unwilling to take on by themselves the enormous cost of research into problems which cover many countries and may be constrained by limits on their technical capacity.

Cooperation at the regional level presents a practical and logical approach to tackling these issues. The ESCAP region, however, has greatly underutilized it. Some concrete areas for regional cooperation are identified below where a regional public goods approach can benefit health and development in the region.

## **1. REGIONAL MECHANISMS FOR FINANCING INCREASED INVESTMENTS IN HEALTH**

Many countries in the Asia-Pacific region may lack the capacity to generate domestic resources on the scale needed to achieve the health-related MDGs. They also may lack the capacity to provide universal coverage of the population with a basic package of health services without substantial mobilization of substantial external resources. The region requires considerable investment in health sector infrastructure, human resources and medical supplies.

Existing mechanisms for coordinating ODA and other forms of external assistance to the health sector have not had the desired impact and there is a need to explore new options and funding sources to finance the region's health sector.

*Closing the investment gap may need new financial mechanisms to tap the region's large savings*

## **2. HEALTH SYSTEMS RESEARCH MECHANISMS FOR THE REGION**

The Asia-Pacific region has an overarching need to develop an agenda for research into the functioning of health systems, with specific reference to their financing, delivery patterns, effectiveness, equity and quality. Regional interest in health systems research has to date been low, perhaps due to a combination of factors, including unwillingness to fund it, lack of capacity and lack of understanding of its importance. This gap has to be redressed by regional mechanisms to review health systems if the country-specific evidence required for strengthening of health systems is to be generated.

Such mechanisms could be set up with a mission to support and promote evidence-based health policy through comprehensive analysis of health-care systems and the factors influencing them. It could work on a wide range of topics relevant to



countries in the region and aim at creating capacity for policy-oriented research and analysis. It could follow principles of developing and implementing partnerships with Governments, international agencies and academic institutions working in the field of health and the sharing of experiences across the region on a range of issues in order to arrive at policy conclusions.

The core areas for research could include health-care financing; health-care policy and reform; analysis of the impact of trade on health; infrastructure; new technology and pharmaceuticals. Other areas to be covered would be primary health care and public health policy; regulation of health care and products related to health; human resources for health; health impact and health technology assessment. Importantly, efforts in these areas must feed into and build upon existing networks at regional and subregional levels for health systems and policy research.

### **3. REGIONAL COOPERATION TO WORK TOWARDS UNIVERSAL HEALTH-CARE COVERAGE**

*Countries can learn from regional experiences to design and build their systems*

Several countries in the region present good examples of how to achieve universal coverage in a short time and in a cost-effective fashion - principally by using the tax-financed national health services model, as in the case of Malaysia, Sri Lanka and Thailand, or the social insurance approach, as in the case of Japan and the Republic of Korea. Given the substantial experience that now exists in the region of universal coverage and of different approaches to achieving it, regional cooperation can facilitate sharing experiences on the different approaches that exist to achieve universal health-care coverage and the mechanisms available to strengthen health systems in the region and enable a better understanding of success stories.

### **4. REGIONAL COOPERATION FOR EFFECTIVE SURVEILLANCE AGAINST COMMUNICABLE DISEASES**

The threat of an avian influenza pandemic has brought together countries and agencies in an unprecedented sharing of information, expertise and resources. This needs to be sustained and developed into a regional platform for the sharing of information and expertise in order to ensure effective surveillance of all diseases. The recently revised International Health Regulations could provide a basis for cooperation.

### **5. REGIONAL ACTION TO ENSURE AFFORDABLE ACCESS TO DRUGS**

*A collective regional position can strengthen negotiating positions in multilateral forums*

There are many constraints on national efforts to implement policies that ensure affordable access to drugs. Since public health is a shared concern of all the countries in the region, a regional approach can provide creative solutions to many challenges based on cooperation and collaboration. Politically, a collective regional position can strengthen the negotiating positions of countries in Asia and the Pacific. From an economic and public health standpoint, a regional approach can provide incentives for establishing or developing regional pharmaceutical production arrangements and expanding research facilities. The potential areas for cooperation are described below.



**a. Developing local technical expertise to exploit flexibilities within trade agreements, such as the Agreement on TRIPS**

This would allow sharing of expertise and experience between countries which are similarly placed within the region. It would also contribute to a policy environment conducive to addressing challenges arising from the TRIPS Agreement and bilateral trade agreements.

**b. Enhancing research and manufacturing in developing countries in the Asia-Pacific region**

Some countries have limited or no pharmaceutical manufacturing capacity. Regional arrangements could enhance R and D and promote investment in joint manufacturing activities which meet regional requirements for essential drugs.

**c. Developing technical and infrastructural capabilities for the regulation of medicines**

Availability and access to good quality medicines can be improved through regional cooperation. This could be done, inter alia, by adopting uniform standards, harmonizing essential drug lists and rationalizing tariffs on imports from other countries in the region. In the ESCAP region, ASEAN countries have made significant progress towards cooperation on regulating medicines.

*Availability and access  
to good quality  
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**d. Establishing regional procurement systems for pharmaceuticals**

Cooperation may be in the form of sharing information about prices and suppliers. It could extend to joint market research and price monitoring. In a more advanced form, regional cooperation could include group contracting and regional pooled procurement to improve the availability and quality of drugs and reduce their cost.

**6. REGIONAL COOPERATION TO OPTIMIZE THE BENEFITS OF THE TRADE IN HEALTH SERVICES**

The movement of patients across borders (Mode II of GATS) is increasing and offering considerable economic potential to many developing countries in the region. It also raises concerns, however, about its possible impact on domestic health-care delivery and on health equity. There are also concerns about the need for reliable information on this issue to support policy formulation. Regional information-sharing on the possible negative impacts and measures that need to be taken to tackle them is of primary importance. Subregional groupings such as ASEAN have taken the initiative through a framework agreement on services, including health services. Regional cooperation on the issue can both protect public health interests and promote trade in areas where it is not contrary to public health objectives. Some areas where regional cooperation could make a positive impact are listed below.

**a. Regional cooperation to collect and exchange reliable and complete information**

Such regional cooperation is important, as most available information is anecdotal and drawn from media reports or academic estimates. Regional

**Hospital accreditation and insurance portability facilitates the cross-border movement of patients**

cooperation on organizing the collection and exchange of reliable and complete information by countries would help to quantify the benefits and identify the potential negative impacts of the trade in health services, enabling timely policy interventions.

**b. Regional mechanisms for regulating the flow of patients across borders**

Hospital accreditation would mitigate problems and facilitate patient movement by providing some assurance of the quality of care to patients across borders. This would also ensure that other concerns related to liability and patient confidentiality are also addressed in a more substantial manner. Agreements to allow portability of health insurance under Mode II of GATS would be beneficial. In some cases, the movement of patients across borders could be viewed as a cost-effective option for providing medical care to patients who are covered under national health insurance schemes, and beneficial to both patient and insurance providers in the public and private sectors.

**c. Regional cooperation to reduce the adverse effects of migration of health workers**

The problem posed by the migration of health workers is global in nature and requires global, as well as regional solutions. Key policy actions at the national and regional levels must tackle a lack of knowledge on this issue. Data collection mechanisms are needed for a clearer and more comprehensive understanding of this situation. It is also important to study migration of health workers in the larger context of the globalization of labour markets.

Regional cooperation agreements between sending and receiving countries could protect migrant workers from unethical and exploitative practices. Receiving countries could launch a reinvestment fund to build urgently needed human resources and capacity in poorer sending countries which might have subsidized the education of health workers.

**Receiving countries could set up a reinvestment fund to build human resources in developing countries**

Receiving countries could also increase the issuance of temporary work permits for health professionals from willing source countries. This form of migration could be mutually beneficial as these source countries benefit from the remittances and savings of returning workers, and their health systems benefit from their improved skills and experience. All this could be done through the framework of GATS or through regional agreements.

## **H. CONCLUDING MESSAGE**

Therefore, every country in the region faces its own special challenges in the pursuit of the health-related MDGs. Taking a comprehensive health systems approach, because delivering universal coverage of a minimum package of health services is key to meeting the challenges and ensuring sustainable progress towards achieving MDGs. In fact, effective and equitable health systems are an absolute requirement for achieving MDGs, as well as other health goals. In this regard, the first challenge is to strengthen health systems. Without more efficient and equitable health systems, countries will not be able to scale up the health interventions required to meet the health-related MDGs. However, the creation of strong health systems is not an end in itself - it is rather a means to achieve better health outcomes. Therefore, all the

determinants of health must be adequately addressed. Given the interconnectedness of the goals, it is difficult to advance towards achieving MDGs without first creating of strategies based on the analysis of the social determinants of health and establishing policies which cover a multiplicity of sectors affecting health. The social determinants of health, such as gender equity, education and poverty, are social conditions that affect health but can be modified through informed action. They must be analysed against the background of the historical and structural factors that have placed women and other social groups at a disadvantage. They also require the attentive study and consideration of geography, ethnicity, race and generational groups. The increasing impact of trade and economic factors need to be addressed through holistic policies which protect public health, while at the same time optimizing the economic gains.

A country focus may not suffice when dealing with health issues that transcend borders, such as increasing investment in health, research, surveillance, migration of health workers and patients, and providing affordable access to drugs. All countries would benefit from a framework for greater regional cooperation that includes a commitment to universal access to health care and strengthening essential public health functions.



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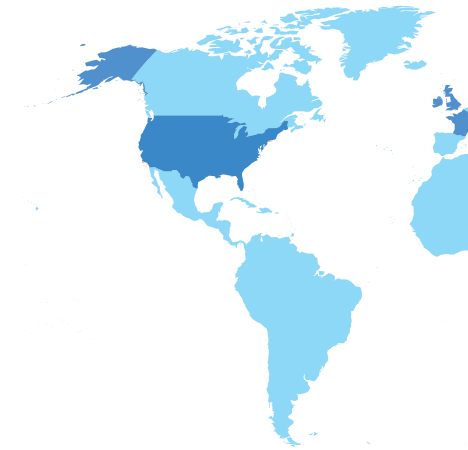
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Impressive economic development in Asia and the Pacific in recent years has resulted in, among other things, improvements in health indicators. Many countries in the region show improved life expectancy with lower infant and child mortality rates. Still, not all in the region have enjoyed such improvements. Poverty persists in the region, which has two thirds of the world's poor. The gap in incomes has also resulted in a gap in access to medical care. Catastrophic out-of-pocket medical costs have prevented many from receiving basic care, pushing a large number into further poverty. HIV/AIDS and avian influenza and other diseases are persistent threats, while some countries have even witnessed worsened life expectancy and infant mortality. Ageing societies and the surge in non-communicable diseases are also demanding new approaches to ensuring access to and quality of affordable health care.

Overcoming these challenges and achieving the health-related Millennium Development Goals require the development of more comprehensive health systems at the national level. For such development, financial investment in health is crucial. Further, other societal issues, including gender equality and stigma against certain groups, need to be addressed to ensure equity in health-care access. The cross-border nature of health concerns, including access to affordable drugs, trade in health services and migration of health personnel, call for necessary actions at the regional level as well.

This theme study, prepared for the sixty-third session of the Economic and Social Commission for Asia and the Pacific, calls for a comprehensive strengthening of health systems in the response to achieving the Millennium Development Goals and sustained economic growth in the region. Building up and strengthening health systems require improvements in the health and other social and economic sectors as well as action by Governments, non-governmental and voluntary organizations, local authorities, industry and the media. A comprehensive health systems approach requires urgent investment, public financial management, human resources planning and infrastructure. It also requires prioritizing health in all national policies to ensure universal access to broad-based health services and affordable access to good quality essential drugs to all sections of the population.



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